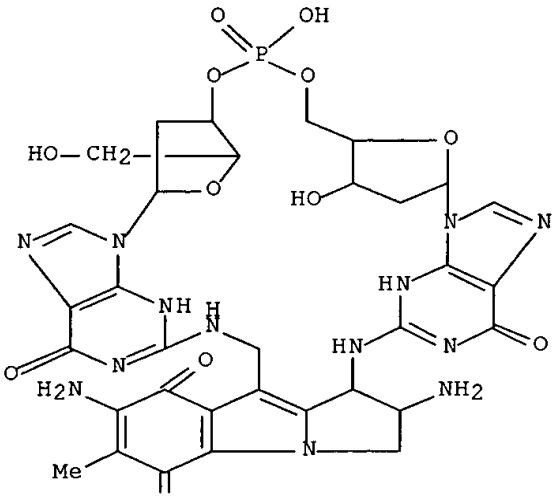
L4 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 2001:530455 CAPLUS
DN 135:251596
TI Selective activation of mitomycin A by thiols to form DNA cross-links and monoadducts: biochemical basis for the modulation of mitomycin cytotoxicity by the quinone redox potential
AU Paz, Manuel M.; Das, Arunangshu; Palom, Yolanda; He, Qiao-Yun; Tomasz, Maria
CS Department of Chemistry Hunter College, City University of New York, New York, NY, 10021, USA
SO Journal of Medicinal Chemistry (2001), 44(17), 2834-2842
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
AB Mitomycin A (MA) but not mitomycin C (MC) cross-linked linearized 32P-pBR322 DNA in the presence of dithiothreitol (DTT) or glutathione (GSH), as shown by a sensitive DNA cross-link assay. Incubation of calf-thymus DNA with MA and DTT or mercaptoethanol (MER) resulted in the formation of MA-DNA adducts, which were isolated from nuclease digests of the drug-DNA complexes by HPLC. The adducts were characterized by their UV absorption spectra, electrospray ionization mass spectrometry (ESIMS), and facile conversion from 7-methoxy- to 7-amino-substituted mitosene type adducts upon 10% NH4OH treatment, which were identical with known adducts of MC. Both DNA interstrand and intrastrand cross-link adducts, linking two deoxyguanosine residues at N2, as well as several deoxyguanosine-N2 monoadducts of MA, were identified. No DNA adducts were formed with MC under the same conditions. A specificity of DNA cross-link formation for the CpG sequence was obsd. using 12-mer synthetic oligodeoxyribonucleotides as substrates and as DNA sequence models, in analogy to the known CpG sequence specificity of MC-induced DNA cross-links. MA is known to be more cytotoxic by 2-3 orders of magnitude than MC, and this property correlates with redox potentials of MA (-0.19 V) and MA analogs that are higher than those of MC (-0.40 V) and its analogs. It is suggested that the biochem. basis for the higher cytotoxic potency of MA is MA's propensity to be reductively activated by cellular thiols while MC is resistant to thiol activation. This distinction is probably derived from the large difference between the quinone redox potentials of the two drugs.
IT **140468-32-2P 361378-61-2P**
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(selective activation of mitomycin A by thiols to form DNA cross-links and monoadducts: modulation of mitomycin cytotoxicity by quinone redox potential)
RN 140468-32-2 CAPLUS
CN 3'-Guanylic acid, 2'-deoxy-N-[[(1R,2S)-2,7-diamino-1-[[9-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]-2,3-dihydro-6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-9-yl]methyl]-, intramol. 3',5''-ester (9CI) (CA INDEX NAME)

PAGE 1-A

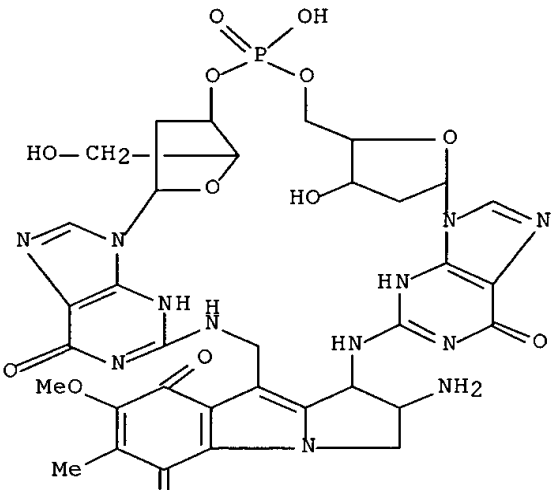


PAGE 2-A

RN 361378-61-2 CAPLUS

CN 3'-Guanylic acid, N-[[(1R,2S)-2-amino-1-[[9-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]-2,3,5,8-tetrahydro-7-methoxy-6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-9-yl]methyl]-2'-deoxy-, intramol-3',5''-ester (9CI) (CA INDEX NAME)

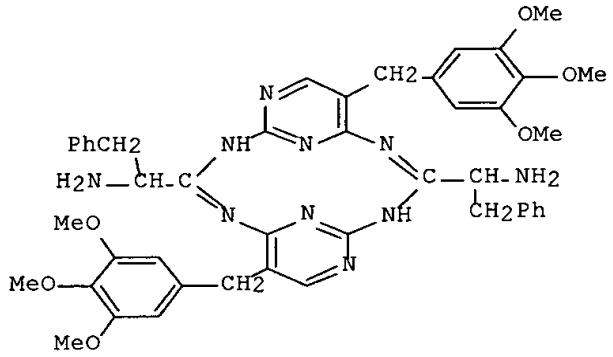
PAGE 1-A



PAGE 2-A

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

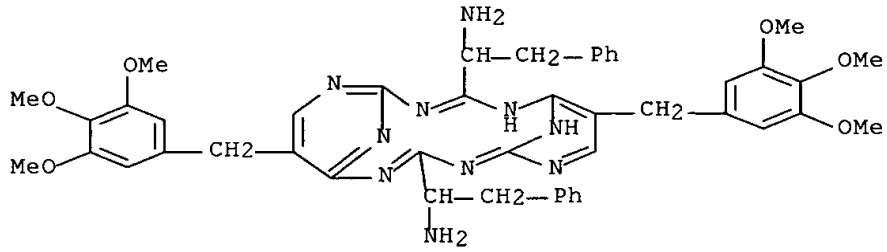
L4 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 2001:464742 CAPLUS
DN 135:204432
TI Synthesis and characterisation of macrocyclic complexes of Manganese(II),
Cobalt(II), Nickel(II), Copper(II) and Zinc(II) containing a tetradentate-N6 macrocyclic ligand
AU Stanley, N.; Amaladasan, M.; Raj, S. Baskar
CS Department of Chemistry, St. Joseph's College, Tiruchirappalli, 620 002, India
SO Asian Journal of Chemistry (2001), 13(3), 1109-1113
CODEN: AJCHEW; ISSN: 0970-7077
PB Asian Journal of Chemistry
DT Journal
LA English
GI



I

AB Synthesis of 12-membered tetradentate N6-macrocyclic ligand (I) complexes of Mn(II), Co(II), Ni(II) and Zn(II) complexes are reported. All these complexes were characterized by elemental anal., IR, UV/visible and cond. data as well as magnetic susceptibility measurements.

IT **261348-19-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and complexation with transition metals)
RN 261348-19-0 CAPLUS
CN 2,4,6,10,12,14,17,18-Octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine, .alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)

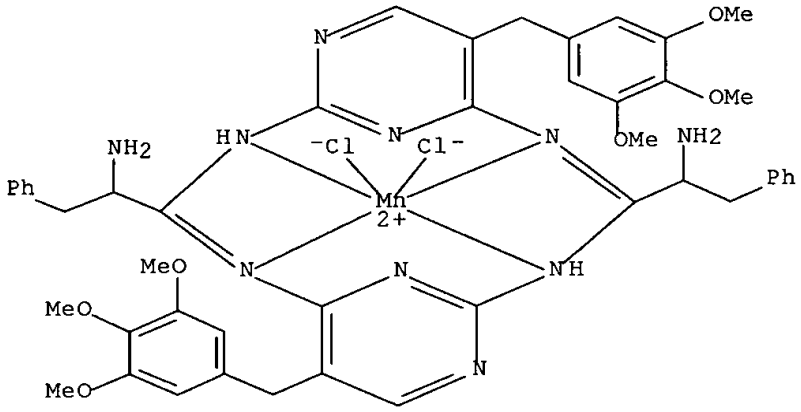


IT **357167-37-4P 357167-38-5P 357167-39-6P**
357167-40-9P 357167-41-0P
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

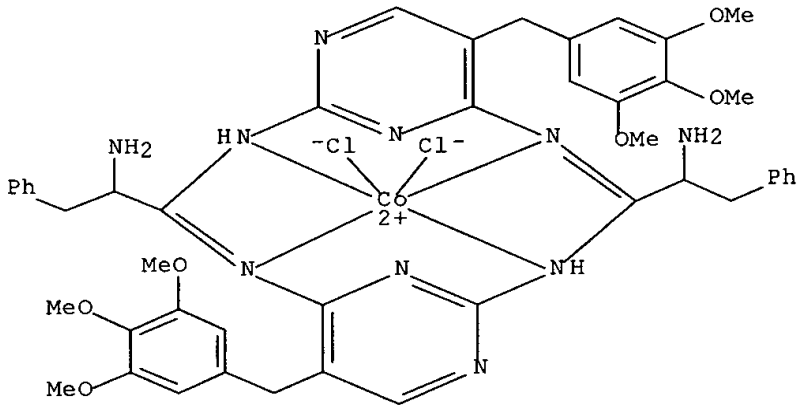
RN 357167-37-4 CAPLUS

CN Manganese, [.alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]-2,4,6,10,12,14,17,18-octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine-.kappa.N2,.kappa.N4,.kappa.N10,.kappa.N12]dichloro-(9CI) (CA INDEX NAME)



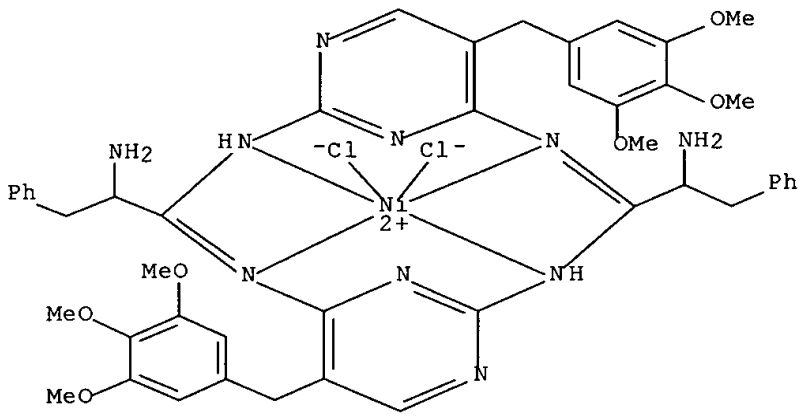
RN 357167-38-5 CAPLUS

CN Cobalt, [.alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]-2,4,6,10,12,14,17,18-octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine-.kappa.N2,.kappa.N4,.kappa.N10,.kappa.N12]dichloro-(9CI) (CA INDEX NAME)

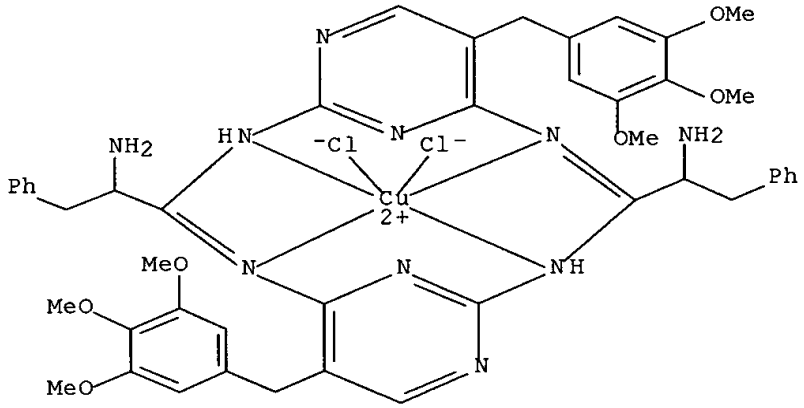


RN 357167-39-6 CAPLUS

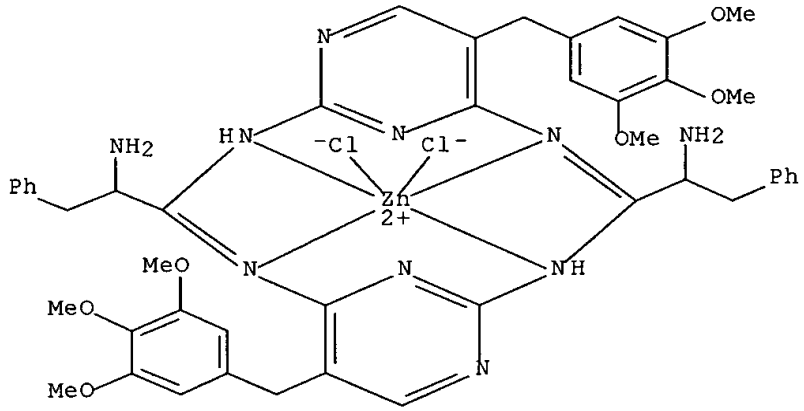
CN Nickel, [.alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]-2,4,6,10,12,14,17,18-octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine-.kappa.N2,.kappa.N4,.kappa.N10,.kappa.N12]dichloro-(9CI) (CA INDEX NAME)



RN 357167-40-9 CAPLUS
CN Copper, [.alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]-2,4,6,10,12,14,17,18-octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine-.kappa.N2,.kappa.N4,.kappa.N10,.kappa.N12]dichloro-(9CI) (CA INDEX NAME)



RN 357167-41-0 CAPLUS
CN Zinc, [.alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]-2,4,6,10,12,14,17,18-octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine-.kappa.N2,.kappa.N4,.kappa.N10,.kappa.N12]dichloro-(9CI) (CA INDEX NAME)



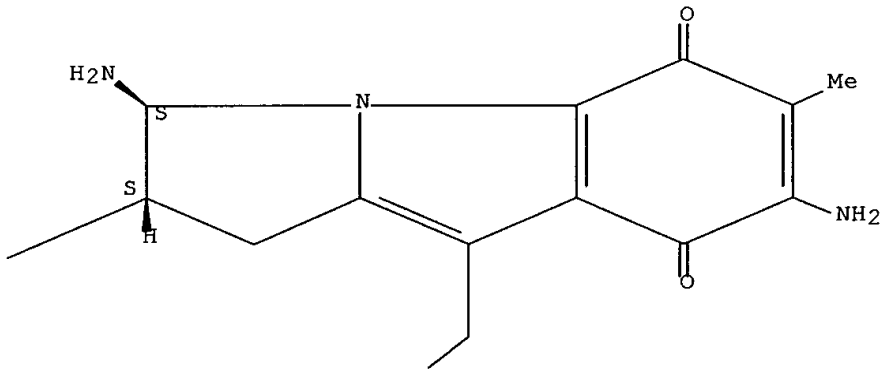
L4 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 2001:373828 CAPLUS
DN 135:251383
TI Bioreductive metabolism of mitomycin C in EMT6 mouse mammary tumor cells: cytotoxic and non-cytotoxic pathways, leading to different types of DNA adducts. The effect of dicumarol
AU Palom, Y.; Belcourt, M. F.; Tang, L.-Q.; Mehta, S. S.; Sartorelli, A. C.; Pritsos, C. A.; Pritsos, K. L.; Rockwell, S.; Tomasz, M.
CS Department of Chemistry, Hunter College, City University of New York, NY, 10021, USA
SO Biochemical Pharmacology (2001), 61(12), 1517-1529
CODEN: BCPCA6; ISSN: 0006-2952
PB Elsevier Science Inc.
DT Journal
LA English
AB The six DNA adducts formed in EMT6 mouse mammary tumor cells upon treatment with mitomycin C (MC) fall into two groups: (1) four guanine adducts of MC and (2) two guanine adducts derived from 2,7-diaminomitosene (2,7-DAM), the major reductive metabolite of MC. The two groups of adducts were proposed to originate from two pathways arising from reductive activation of MC: (a) direct alkylation of DNA and (b) formation of 2,7-DAM, which then alkylates DNA. The aim of this study was to test the validity of this proposal and to evaluate the significance of alkylation of DNA by 2,7-DAM. Treatment of the cells with 2,7-DAM itself yielded the same 2,7-DAM-guanine adducts as treatment with MC; however, 2,7-DAM was approx. 100-fold less cytotoxic than MC. The uptake and efflux of 2,7-DAM by EMT6 cells was comparable to that of MC, but 2,7-DAM alkylated DNA with higher efficiency than MC. These results validate the two proposed pathways and show that formation of 2,7-DAM-DNA adducts in MC-treated cells represents a relatively non-toxic pathway of reductive metab. of MC. A selective stimulatory effect of dicumarol (DIC) on 2,7-DAM-DNA adduct formation in EMT6 cells treated with MC was also investigated. DIC had no effect on alkylation by MC in cell-free systems, nor did it have significant effects on adduct formation or cell survival for cells treated with 2,7-DAM. It is proposed that in the cell DIC stimulates a reductase enzyme located at subcellular sites where the activated MC species has no direct access to DNA and therefore is diverted into the non-cytotoxic pathway, which leads to the formation of 2,7-DAM and its adducts.
IT **361365-62-0D**, DNA adducts
RL: BSU (Biological study, unclassified); FMU (Formation, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(bioreductive metab. of mitomycin C in EMT6 mouse mammary tumor cells by cytotoxic and non-cytotoxic pathways, leading to different types of DNA adducts and the effect of dicumarol)
RN 361365-62-0 CAPLUS
CN 3'-Guanylic acid, 2'-deoxy-N-[[(2S,3S)-3,7-diamino-2-[[9-(2-deoxy-.beta.-D-

erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]-2,3-dihydro-
6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-9-yl]methyl]-, intramol. 3',5''-ester (8CI, 9CI) (CA INDEX NAME)

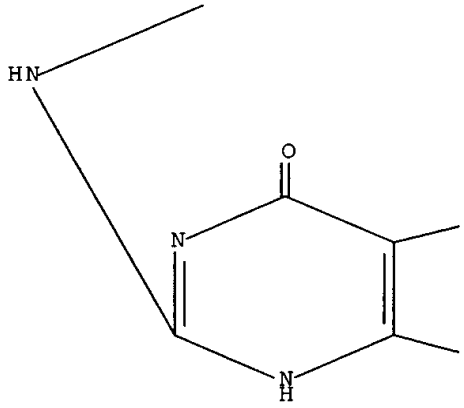
Absolute stereochemistry.

PAGE 1-A

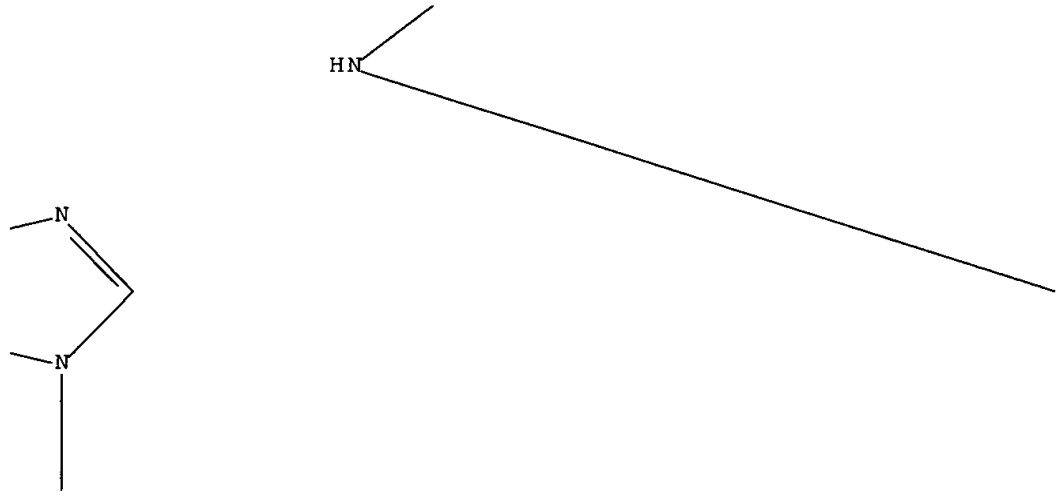
PAGE 1-B

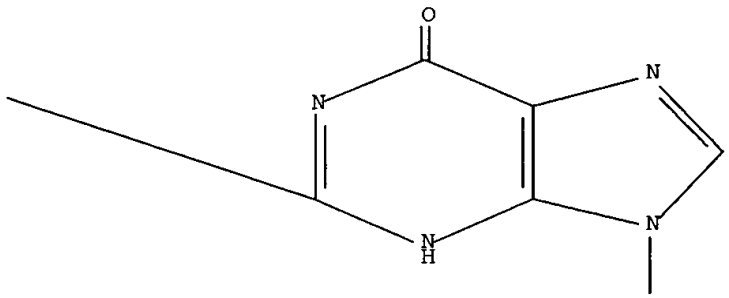


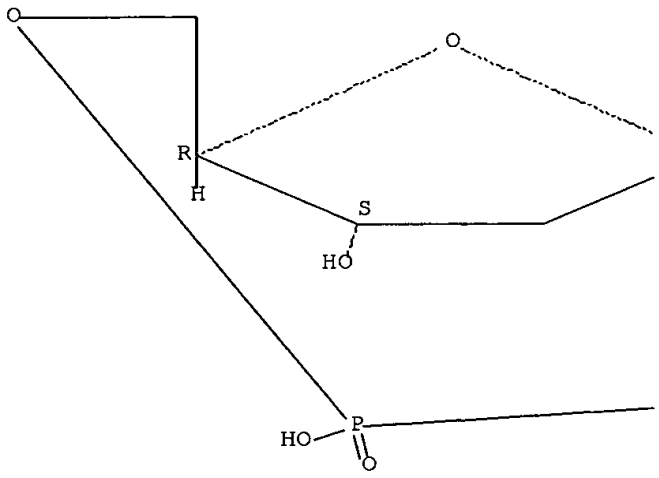
PAGE 2-A



PAGE 2-B







* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

*** STRUCTURE DIAGRAM IS NOT AVAILABLE
RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

App's

L4 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 2001:31508 CAPLUS
DN 134:95528
TI Potassium channel blocking agents
IN Teuber, Lene; Olesen, Soren Peter; Strobaek, Dorte
PA Neurosearch A/S, Den.
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001002406	A1	20010111	WO 2000-DK332	20000622
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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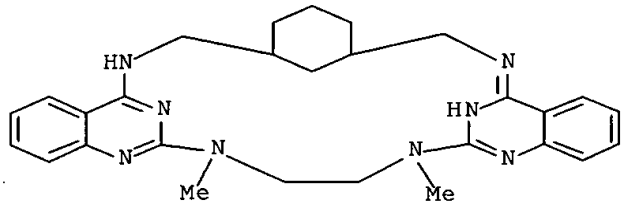
	US 2002128279	A1	20020912	US 2001-29168	20011228
PRAI	DK 1999-927	A	19990629		
	WO 2000-DK332	W	20000622		

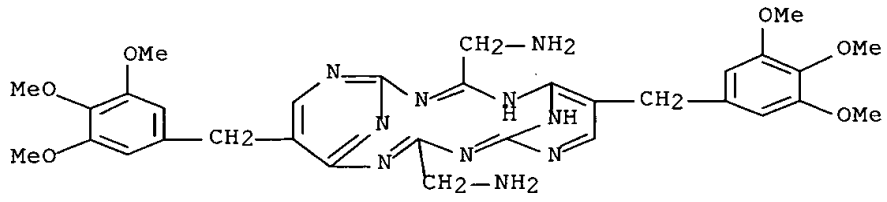
OS MARPAT 134:95528
AB This invention relates to novel potassium channel blocking agents, and their use in the prepn. of pharmaceutical compns. Moreover the invention is directed to pharmaceutical compns. useful for the treatment or alleviation of diseases or disorders assocd. with the activity of potassium channels, in particular asthma, cystic fibrosis, chronic obstructive pulmonary disease and rhinorrhea, convulsions, vascular spasms, coronary artery spasms, renal disorders, polycystic kidney disease, bladder spasms, urinary incontinence, bladder outflow obstruction, irritable bowel syndrome, gastrointestinal dysfunction, secretory diarrhea, ischemia, cerebral ischemia, ischemic heart disease, angina pectoris, coronary heart disease, traumatic brain injury, psychosis, anxiety, depression, dementia, memory and attention deficits, Alzheimer's disease, dysmenorrhea, narcolepsy, Reynaud's disease, intermittent claudication, Sjogren's syndrome, migraine, arrhythmia, hypertension, absence seizures, myotonic muscle dystrophy, xerostomia, diabetes type II, hyperinsulinemia, premature labor, baldness, cancer, and immune suppression.
IT **318499-96-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)(potassium channel blocking agents for the prepn. of pharmaceutical compns. for disease treatment)
RN 318499-96-6 CAPLUS
CN 8,12-Methano-5,26:15,21-dinitrilo-6H-dibenzo[i,v][1,3,6,8,12,20]hexaazacyclotricosine, 7,8,9,10,11,12,13,14,22,23,24,25-dodecahydro-22,25-dimethyl-(9CI) (CA

INDEX NAME)

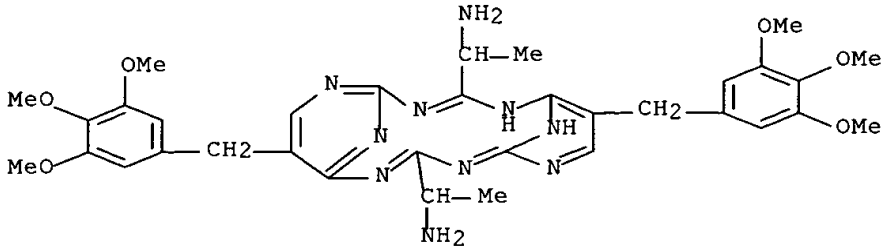


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

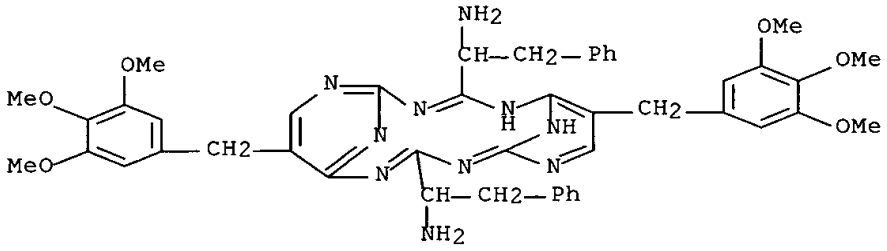
L4 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 2000:70414 CAPLUS
DN 132:222524
TI Synthesis of N8-macrocyclic ligands by polyphosphoric acid-catalyzed condensation of trimethoprim with amino acids
AU Amaladasan, M.; Paulraj, A.; Arulsamy, K. S.
CS Research & Post Graduate Department of Chemistry, St. Joseph's College, Tiruchirapalli, 620 002, India
SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1999), 38B(11), 1282-1284
CODEN: IJSBDB; ISSN: 0376-4699
PB National Institute of Science Communication, CSIR
DT Journal
LA English
OS CASREACT 132:222524
AB Trimethoprim [2,4-diamino-5-(3',4',5'-trimethoxybenzyl)pyrimidine] reacts with amino acids to give colorless N8-macrocyclic compds. by polyphosphoric acid-catalyzed condensation. The products contain a cross conjugated macrocyclic system of a novel type, related to some extent to azoporphins. The condensation proceeds to give products which, in certain instances, are not readily attainable by conventional condensation techniques.
IT **261348-16-7P 261348-18-9P 261348-19-0P 261348-20-3P 261348-21-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of N8-macrocyclic ligands by polyphosphoric acid-catalyzed condensation of trimethoprim with amino acids)
RN 261348-16-7 CAPLUS
CN 2,4,6,10,12,14,17,18-Octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine, 8,16-bis[(3,4,5-trimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



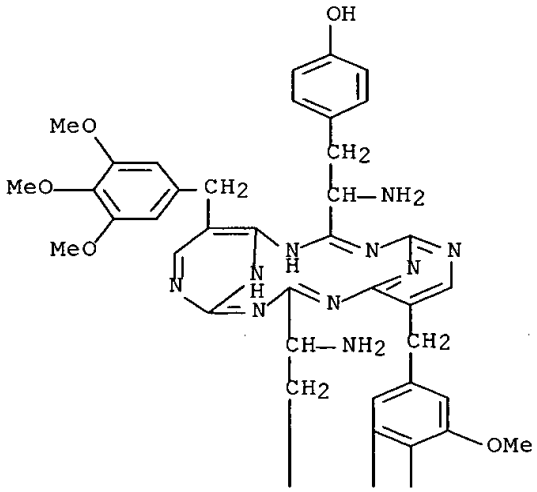
RN 261348-18-9 CAPLUS
CN 2,4,6,10,12,14,17,18-Octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine, .alpha.,.alpha.'-dimethyl-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]- (9CI)
(CA INDEX NAME)



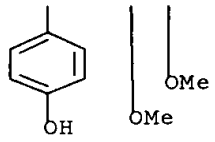
RN 261348-19-0 CAPLUS
CN 2,4,6,10,12,14,17,18-Octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine, .alpha.,.alpha.'-bis(phenylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



RN 261348-20-3 CAPLUS
CN Phenol, 4,4'-[[8,16-bis[(3,4,5-trimethoxyphenyl)methyl]-2,4,6,10,12,14,17,18-octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-diyl]bis(2-amino-2,1-ethanediyl)]bis- (9CI) (CA INDEX NAME)



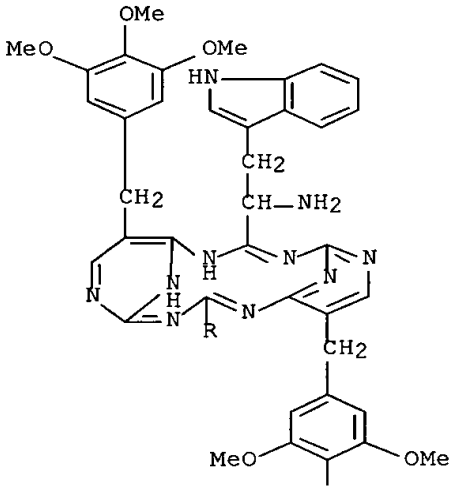
PAGE 2-A



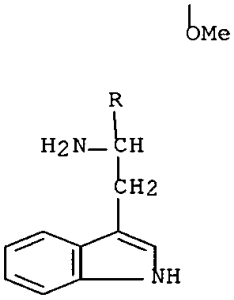
RN 261348-21-4 CAPLUS

CN 2,4,6,10,12,14,17,18-Octaazatricyclo[11.3.1.15,9]octadeca-1(17),2,5,7,9(18),10,13,15-octaene-3,11-dimethanamine, .alpha.,.alpha.'-bis(1H-indol-3-ylmethyl)-8,16-bis[(3,4,5-trimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

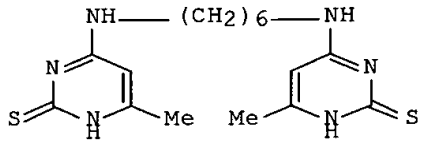


PAGE 2-A



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1999:630451 CAPLUS
DN 131:351293
TI New macrocyclic structures containing pyrimidine rings
AU Mikhailov, A. S.; Pashkurov, N. G.; Reznik, V. S.; Giniyatullin, R. Kh.; Skuzlova, V. I.; Efremov, Yu. Ya.; Sharafutdinova, D. R.; Shagidullin, R. R.; Chernova, A. V.; Doroshkina, G. M.; Nafikova, A. A.; Azancheev, N. M.
CS Inst. Org. Fiz. Khim. im. A.B. Arbuzova, Kazan. Nauchnogo Tsentra Ross. Akad. Nauk, Kazan, Russia
SO Doklady Akademii Nauk (1998), 362(5), 643-644
CODEN: DAKNEQ; ISSN: 0869-5652
PB MAIK Nauka
DT Journal
LA Russian
GI



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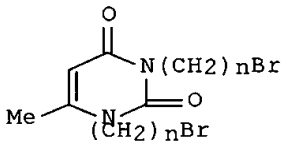
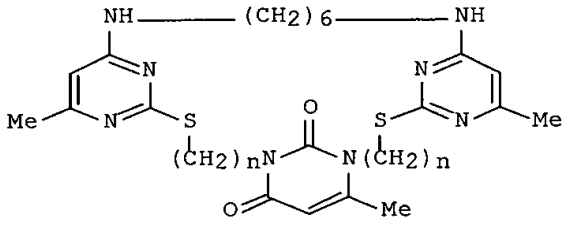


II

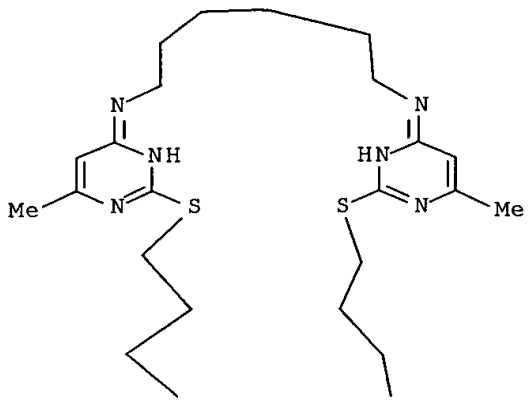


III

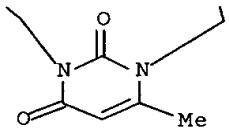
AB Reaction of the disodium salt of bispyrimidinethione I with bis(bromoalkyl)pyrimidinediones II (n = 4, 5) gave macrocycles III (n = 4, 5).

IT **250355-09-0P 250355-10-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 250355-09-0 CAPLUS
CN 2,16-Dithia-7,11,18,22,29,33,34,35-octaazatetracyclo[28.3.1.17,11.117,21]hexatriaconta-1(34),9,17,19,21(37),30,32-heptaene-8,36-dione, 10,19,32-trimethyl- (9CI) (CA INDEX NAME)

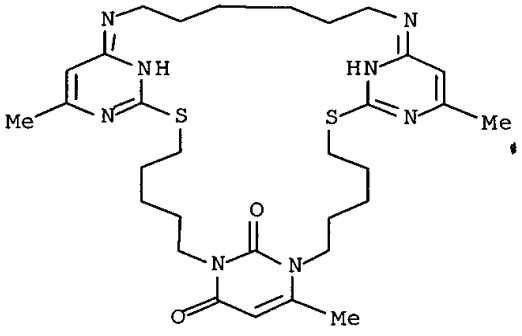
PAGE 1-A



PAGE 2-A



RN 250355-10-3 CAPLUS
CN 2,18-Dithia-8,12,20,24,31,35,36,37-octaazatetracyclo[30.3.1.18,12.119,23]octatriaconta-1(36),10,19,21,23(37),32,34-heptaene-9,38-dione, 11,21,34-trimethyl- (9CI) (CA INDEX NAME)



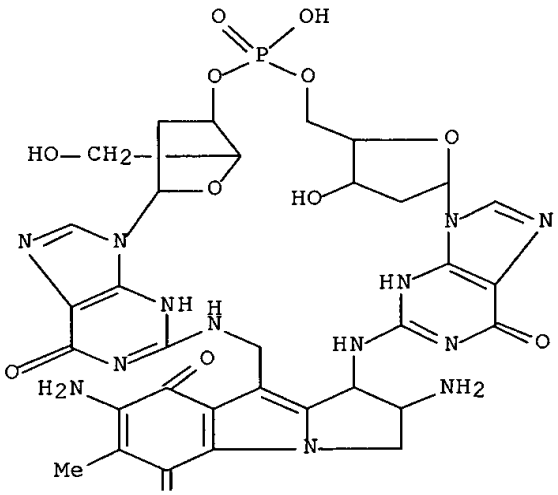
L4 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1997:690049 CAPLUS
DN 128:30100
TI Mitomycin C-DNA Adducts Generated by DT-Diaphorase. Revised Mechanism of the Enzymic Reductive Activation of Mitomycin C
AU Kumar, Gopinatha Suresh; Lipman, Roselyn; Cummings, Jeffrey; Tomasz, Maria
CS Department of Chemistry Hunter College, City University of New York, New York, NY, 10021, USA
SO Biochemistry (1997), 36(46), 14128-14136
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB Mitomycin C (MC) was reductively activated by DT-diaphorase [DTD; NAD(P)H, quinone oxidoreductase] from rat liver carcinoma cells in the presence of Micrococcus lysodeicticus DNA at pH 5.8 and 7.4. The resulting alkylated MC-DNA complexes were digested to the nucleoside level and the covalent MC-nucleoside adducts were sepd., identified, and quant. analyzed by HPLC. In analogous expts., two other flavoreductases, NADH-cytochrome c reductase and NADPH-cytochrome c reductase, as well as two chem. reductive activating agents Na2S2O4 and H2/PtO2 were employed as activators for the alkylation of DNA by MC. DTD as well as all the other activators generated the four known major guanine-N2-MC adducts at both pHs. In addn., at the lower pH, the guanine-N7-linked adducts of 2,7-diaminomitosene were detectable in the adduct patterns. At a given pH all the enzymic and chem. reducing agents generated very similar adduct patterns which, however, differed dramatically at the acidic as compared to the neutral pH. Overall yield of MC adducts was 3-4-fold greater at pH 7.4 than at 5.8 except in the case of DTD when it was 4-fold lower. Without exception, however, cross-link adduct yields were greater at the acidic pH (2-10-fold within the series). The ratio of adducts of bifunctional activation to those of monofunctional activation was 6-20-fold higher at the acidic as compared to the neutral pH. A comprehensive mechanism of the alkylation of DNA by activated MC was derived from the DNA adduct anal. which complements earlier model studies of the activation of MC. The mechanism consists of three competing activation pathways yielding three different DNA-reactive electrophiles 12, 14, and 17 which generate three unique sets of DNA adducts as endproducts. The relative amts. of these adducts are diagnostic of the relative rates of the competing pathways in vitro, and most likely, in vivo. Factors that influence the relative rates of individual pathways were identified.
IT **140468-32-2D**, DNA adducts
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(formation of DNA adducts by reductive activation of mitomycin C with

DT-diaphorase)

RN 140468-32-2 CAPLUS

CN 3'-Guanylic acid, 2'-deoxy-N-[[(1R,2S)-2,7-diamino-1-[[9-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]-2,3-dihydro-6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-9-yl]methyl]-, intramol. 3',5''-ester (9CI) (CA INDEX NAME)

PAGE 1-A



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L4 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1996:673656 CAPLUS
DN 125:300599
TI Preparation of 2,4-diphenyl-4-methyl-1-pentene
IN Himori, Shunichi
PA Mitsubishi Chem Corp, Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08217703	A2	19960827	JP 1995-29621	19950217

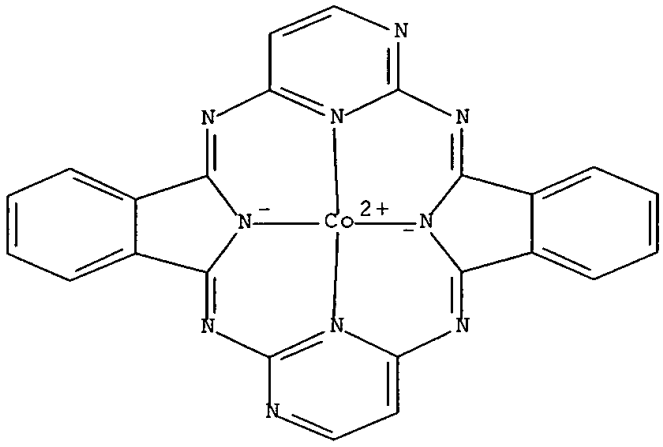
OS CASREACT 125:300599; MARPAT 125:300599
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

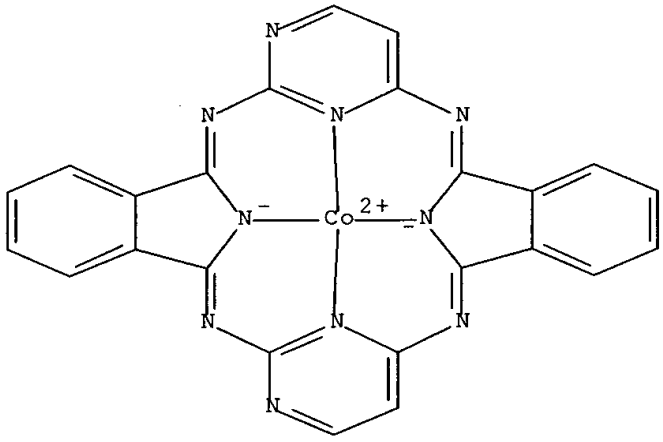
AB The title compd. (II) is prepd. by dimerization of .alpha.-methylstyrene (III) with cyclic Co chelating complexes I [X = N, CH; R1-4 = H, C1-10 alkyl; R1R2 or R3R4 may be Q1-5; Y = H, C1-3 alkyl, halo, CO2H, SO3H; Z = H, amino, C1-3 alkyl, C1-3 alkoxy, OH, Ph, halo] in the presence of radical initiators. A mixt. of Co complex IV, III, and Percumyl H-80 was treated at 180.degree. for 8 h to give II with 98.8% selectivity at 69.5% conversion.

IT **183009-54-3P 183009-56-5P 183009-58-7P**
183009-60-1P 183009-62-3P 183009-64-5P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(prepn. of diphenylmethylpentene by dimerization of methylstyrene with Co porphyrin catalysts and radical initiators)

RN 183009-54-3 CAPLUS
CN Cobalt, [5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,14,18]hexaazacyclodocosinato(2-)-N27,N28,N29,N30]-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 183009-56-5 CAPLUS
CN Cobalt, [5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,16,1
8]hexaazacyclodocosinato(2-)-N27,N28,N29,N30]-, (SP-4-1)- (9CI) (CA INDEX
NAME)



RN 183009-58-7 CAPLUS
CN Cobalt, [5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,14,1
8]hexaazacyclodocosine-9,22(10H,23H)-dionato(2-)-N27,N28,N29,N30]-,
(SP-4-1)- (9CI) (CA INDEX NAME)

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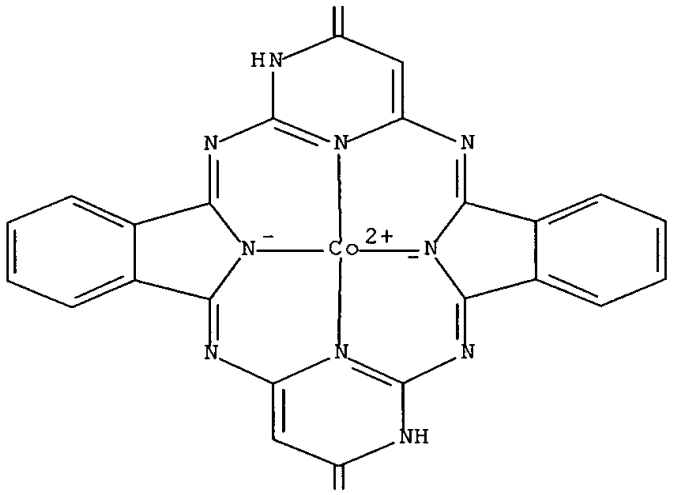

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RN 183009-60-1 CAPLUS
CN Cobalt, [5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,16,18]hexaazacyclodocosine-9,22(8H,23H)-dionato(2-)-N27,N28,N29,N30]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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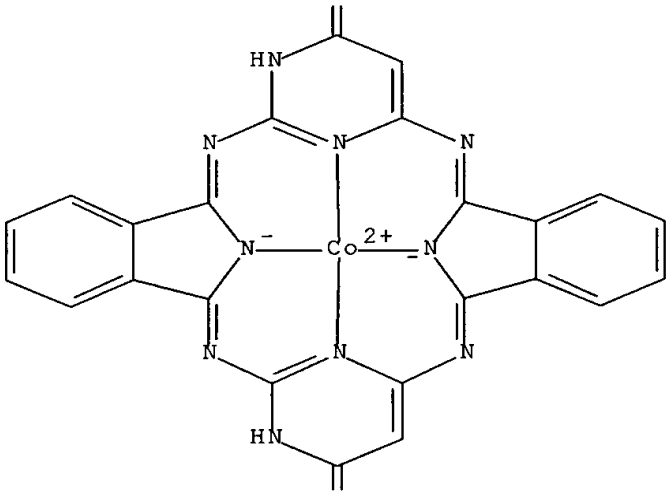

PAGE 3-A

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RN 183009-62-3 CAPLUS
CN Cobalt, [9,22-dichloro-5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,14,18]hexaazacyclodocosinato(2-)-N27,N28,N29,N30]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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Cl

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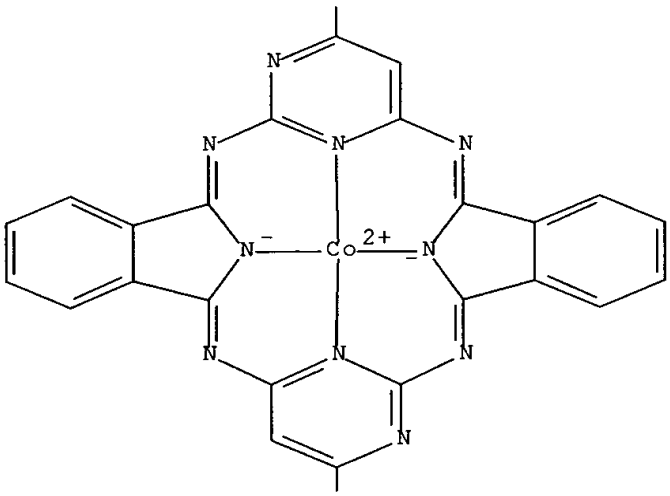


PAGE 3-A

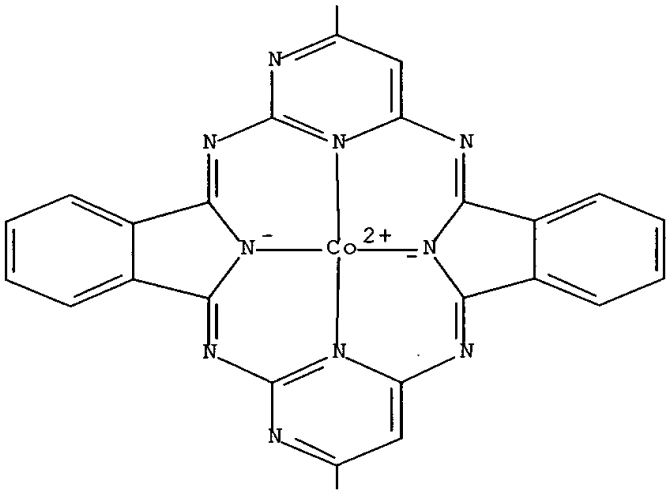
Cl

RN 183009-64-5 CAPLUS
CN Cobalt, [9,22-dichloro-5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,16,18]hexaazacyclodocosinato(2-)-N27,N28,N29,N30]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A

Cl

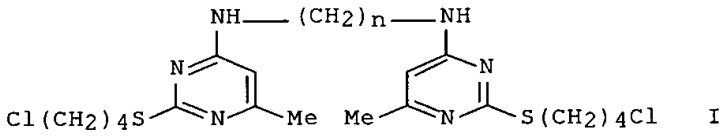
PAGE 2-A



PAGE 3-A

Cl

L4 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1996:605017 CAPLUS
DN 126:31340
TI Reaction of N,N'-bis(2-mercapto-6-methyl-4-pyrimidinyl)alkylenediamines with .alpha.,.omega.-dihaloalkanes
AU Mikhailov, A. S.; Skuzlova, V. I.; Pashkurova, N. G.; Reznik, V. S.
CS Arbuzov, A.E., Institut Organicheskoi i Fizicheskoi Khimii, Kazanskii Nauchnyi Tsentr, Kazan, Russia
SO Zhurnal Obshchei Khimii (1996), 66(3), 514-517
CODEN: ZOKHA4; ISSN: 0044-460X
PB Nauka
DT Journal
LA Russian
GI



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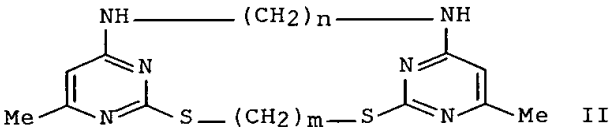
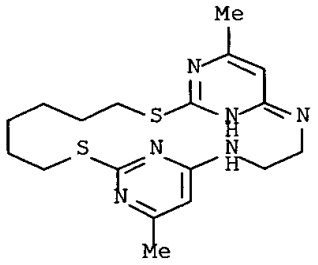


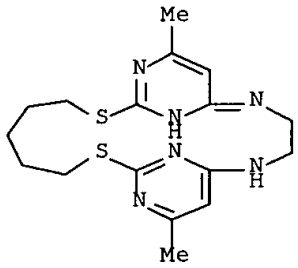
II

AB The title reactions gave S-alkylated products (I; n = 2, 3, 4, 6) and tricyclic products (II; m, n = 6, 2; 5, 2; 4, 4; 6, 6).
IT **183953-73-3P 183953-74-4P 183953-75-5P 183953-76-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 183953-73-3 CAPLUS
CN 11,18-Dithia-2,5,9,20,23,24-hexaazatricyclo[17.3.1.16,10]tetracosa-1(23),6,8,10(24),19,21-hexaene, 8,21-dimethyl- (9CI) (CA INDEX NAME)

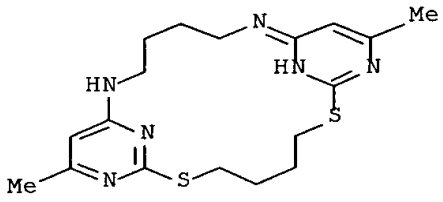


RN 183953-74-4 CAPLUS
CN 11,17-Dithia-2,5,9,19,22,23-hexaazatricyclo[16.3.1.16,10]tricosa-

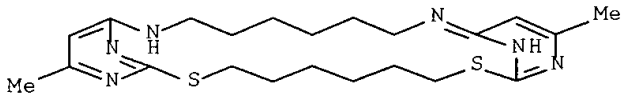
1(22),6,8,10(23),18,20-hexaene, 8,20-dimethyl- (9CI) (CA INDEX NAME)



RN 183953-75-5 CAPLUS
CN 2,7-Dithia-9,13,18,22,23,24-hexaazatricyclo[17.3.1.18,12]tetracosa-1(23),8,10,12(24),19,21-hexaene, 10,21-dimethyl- (9CI) (CA INDEX NAME)



RN 183953-76-6 CAPLUS
CN 2,9-Dithia-11,15,22,26,27,28-hexaazatricyclo[21.3.1.110,14]octacosa-1(27),10,12,14(28),23,25-hexaene, 12,25-dimethyl- (9CI) (CA INDEX NAME)



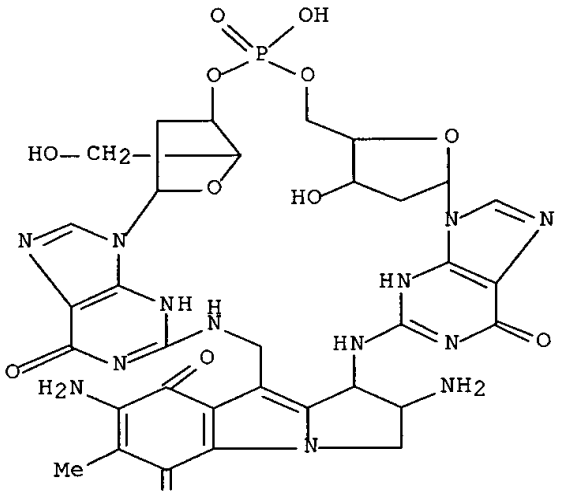
L4 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1994:94934 CAPLUS
DN 120:94934
TI Adducts of mitomycin C and DNA in EMT6 mouse mammary tumor cells: Effects of hypoxia and dicumarol on adduct patterns
AU Bizanek, Roland; Chowdary, Dondapati; Arai, Hitoshi; kasai, Masaji; Hughes, Christine S.; Sartorelli, Alan C.; Rockwell, Sara; Tomasz, Maria
CS Hunter Coll., City Univ. New York, New York, NY, 10021, USA
SO Cancer Research (1993), 53(21), 5127-34
CODEN: CNREA8; ISSN: 0008-5472
DT Journal
LA English
AB 6-Me-3H-Mitomycin C (MC) was used to identify MC-DNA adducts formed in EMT6 mouse mammary tumor cells. DNA was isolated from cells treated with 3H-MC. The DNA was enzymically digested, and the digest was analyzed for 3H-labeled adducts by HPLC. All 4 major adducts previously isolated and characterized to cell-free systems were detected: 2 different monoadducts and 2 bisadducts forming DNA-interstrand and DNA-intrastrand cross-links, resp. No MC-DNA adducts other than the DNA interstrand cross-link had been shown previously to be formed in living cells. A MC-deoxyguanosine adduct of unknown structure was also detected in DNA from EMT6 cells; this adduct was also formed with purified EMT6 DNA. HPLC anal. was further applied to study the relation between DNA adducts and cytotoxicity. The no. of adducts increased with the concn. of MC in both aerobic and hypoxic cells. At a const. drug level, more adducts were obsd. in cells treated under hypoxic conditions than in cells treated aerobically; at 2 .mu.M MC, 4.8 .times. 10-7 and 3.1 .times. 10-7 adducts/nucleotide were obsd. under hypoxic and aerobic conditions, resp. The increased adduct frequency under hypoxia correlates with the known increased cytotoxicity of MC to EMT6 cells under hypoxic conditions. A higher ratio of cross-linked adducts to monoadducts was obsd. in hypoxia cells. The HPLC techniques were also used to examine the effects of dicumarol (DIC) on adduct patterns in cells treated simultaneously with 3H-MC. The MC-DNA adduct frequencies in DIC-treated cells were increased 1.5-fold under hypoxia and decreased 1.6-fold under aerobic conditions from those obsd. without DIC. This finding correlates with the known DIC-induced increase and decrease in the cytotoxicity of MC in hypoxic and aerobic EMT6 cells, resp. The monoadduct resulting from monofunctionally activated MC was suppressed by DIC under both hypoxic and aerobic conditions. DIC induced the selective formation of an unknown DNA-assocd. radiolabeled substance in hypoxic cells; this is hypothesized to be a cytotoxic DNA lesion produced by a DIC-stimulated oxido-reductase. The methodol. developed to measure MC adduct patterns may be useful as an indicator of distinct enzymic activation processes for this drug.
IT **140468-32-2**

RL: FORM (Formation, nonpreparative)
(formation of, mitomycin C interaction with DNA in relation to)

RN 140468-32-2 CAPLUS

CN 3'-Guanylic acid, 2'-deoxy-N-[[(1R,2S)-2,7-diamino-1-[[9-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]-2,3-dihydro-6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-9-yl]methyl]-, intramol. 3',5''-ester (9CI) (CA INDEX NAME)

PAGE 1-A



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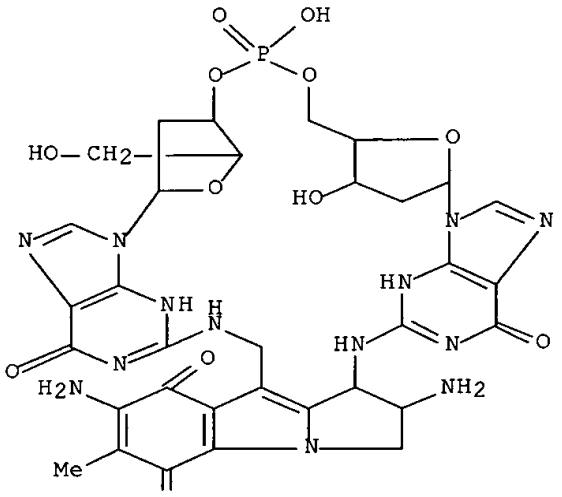
L4 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1992:482982 CAPLUS
DN 117:82982
TI Isolation and structure of an intrastrand cross-link adduct of mitomycin C
and DNA
AU Bizanek, Roland; McGuinness, Brian F.; Nakanishi, Koji; Tomasz, Maria
CS Hunter Coll., City Univ. New York, New York, NY, 10021, USA
SO Biochemistry (1992), 31(12), 3084-91
CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB A new covalent mitomycin C-DNA adduct (I) was isolated from DNA exposed to
reductively-activated mitomycin C (MC) in vitro. The MC-treated DNA was hydrolyzed enzymically under certain conditions, and the new adduct was isolated from the hydrolyzate by HPLC. Its structure was detd. by UV and
CD spectroscopy and chem. and enzymic transformations conducted on microscale. In the structure, a single 2''.beta.,7''-diaminomitosene residue is linked bifunctionally to two guanines in the dinucleoside phosphate d(GpG). The guanines are linked at their N2 atoms to the C1'' and C10'' positions of the mitosene, resp. A key to the structure was a finding that removal of the mitosene from the adduct by host piperidine yielded d(GpG); another was that the adduct was slowly converted to the known interstrand crosslink adduct (II) by snake venom diesterase and alk.
phosphatase. Adduct I represents an intrastrand crosslink in DNA formed by MC. OOf the 2 possible strand-polarity isomers of I one in which the mitosene 1''-position is linked to the 3'-guanine of d(GpG) is designated
as the proper structure, on the basis of the mechanism of the crosslinking
reaction. The same adduct I was isolated from poly(dG).cntdot.poly(dC), synthetic oligonucleotides contg. the GpG sequence, and Micrococcus luteus
and calf thymus DNAs. The relative yields of interstrand and intrastrand
crosslinks (I and II) were detd. under first-order kinetic conditions; an
av. 3.6-fold preference for the formation of II over that of I was obsd. An explanation for this preference is proposed. Energy-minimized structural models were generated for the 2 strand-polarity isomers of the
intrastrand crosslink I, incorporated in a duplex decanucleotide. Both models indicate bending of DNA near the crosslink site. The identification and structural properties of the new, intrastrand crosslink
lesion of DNA by MC are significant with respect to cancer drug development as well as structural chem. of DNA-damaging agents.
IT **140468-32-2 140468-33-3**
RL: FORM (Formation, nonpreparative)
(formation of, from inter- and intrastand crosslinking of DNA by mitomycin C)
RN 140468-32-2 CAPLUS
CN 3'-Guanylic acid, 2'-deoxy-N-[[(1R,2S)-2,7-diamino-1-[[9-(2-deoxy-.beta.-D-

erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]-2,3-dihydro-
6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-9-yl]methyl]-, intramol. 3',5''-ester (9CI) (CA INDEX NAME)

PAGE 1-A

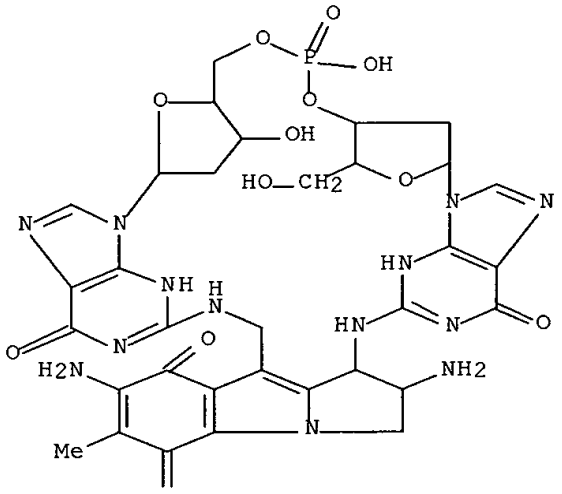


PAGE 2-A

RN 140468-33-3 CAPLUS

CN 3'-Guanylic acid, 2'-deoxy-N-[(1R,2S)-2,7-diamino-9-[[[9-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-6,9-dihydro-6-oxo-1H-purin-2-yl]amino]methyl]-2,3-dihydro-6-methyl-5,8-dioxo-1H-pyrrolo[1,2-a]indol-1-yl]-, intramol. 3',5''-ester (9CI) (CA INDEX NAME)

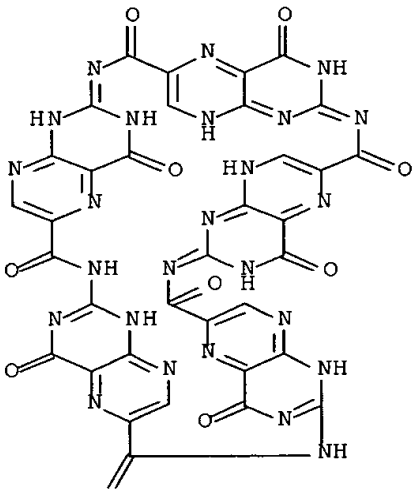
PAGE 1-A



PAGE 2-A

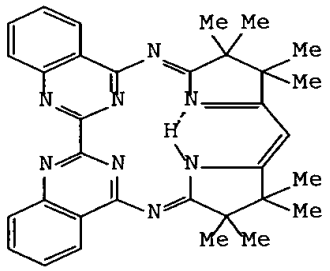
L4 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1989:436821 CAPLUS
DN 111:36821
TI Structures of the pigments in the skin and the gangliosides in the brains
of frogs
AU Munesada, K.; Yuasa, T.; Suga, T.
CS Fac. Sci., Hiroshima Univ., Hiroshima, Japan
SO Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1988), 30, 244-51
CODEN: TYKYDS
DT Journal
LA Japanese
AB A discussion on the authors' works on structural anal. of skin pigments and brain gangliosides from frog species (Rhacoporus, Rana, and Hyla) and
Bufo is given. These skin pigments were identified as pterin-6-carboxylic
acid, xanthopterin, isoxanthopterin, erythro-biopterin,
6-hydroxymethylpterin, guanine, and a pteridine deriv. composed to 5 mols.
of pterin-6-carboxylic acid. Three gangliosides were isolated from the brain tissues of bullfrog (Rana catesbeiana) and identified as disialosylgangliotetraosylceramide (III6NeuAcIV3NeuAc-GgOse4Cer), trisialosylgangliotetraosylceramide (III6NeuAcIV3(NeuAc)2-GgOse4Cer), and tetrasialosylgangliotetraosylceramide (III6(NeuAc)2IV3(NeuAc)2GgOse4Cer).
IT **116360-71-5**
RL: BIOL (Biological study) (of skin of frogs)
RN 116360-71-5 CAPLUS
CN 2,6,8,12,16,18,22,26,28,32,36,38,42,46,48,51,52,53,54,55,56,57,58,59,60-Pentacosaazaundecacyclo[45.3.1.14,50.17,11.110,14.117,21.120,24.127,31.130,34.137,41.140,44]hexaconta-3,7,10,12,14(59),17,20,22,24(57),27,30,32,34(55),37,40,42,44(53),47,50(52)-eicosaene-5,9,15,19,25,29,35,39,45,49-decone (9CI) (CA INDEX NAME)

PAGE 1-A



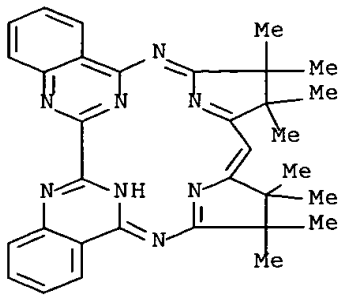
PAGE 2-A

L4 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1989:17693 CAPLUS
DN 110:17693
TI A new macrocyclic ligand combining two different coordination sites: macrocyclic biquinazoline (Mabiq-). Synthesis and structure of the free ligand and of a cobalt(III) complex
AU Mueller, Edgar; Bernardinelli, Gerald; Von Zelewsky, Alex
CS Dep. Chim. Miner., Anal. Appl., Univ. Geneva, Geneva, 1211, Switz.
SO Inorganic Chemistry (1988), 27(25), 4645-51
CODEN: INOCAJ; ISSN: 0020-1669
DT Journal
LA English
GI



I

AB The prepn. of I (HMabiq), combining a corrin type macrocyclic environment with an addnl. diimine type coordination site, is described. The yellow compd. crystallizes in the orthorhombic system (P212121) with a 10.831(2), b 12.201(2), c 21.978(4) .ANG., and Z = 4. [Co(Mabiq)(CN)2] crystallizes in the triclinic system (P1) with a 10.211(1), b 18.785(3), c 19.262(3) .ANG., .alpha. 107.80(1), .beta. 100.14(2), .gamma. 98.96(2).degree., and Z = 4. This compd. is a model for dicyanocobalamine, as seen from its narrow UV/visible absorption peak at 536 nm (.epsilon. = 19,000) and the reversible CoII/CoI redn.-oxidn. wave at -0.41 V (NHE).
IT **117709-42-9P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)
RN 117709-42-9 CAPLUS
CN 5,24-Imino-10,7:15,12:17,23-trinitrilo-7H-dibenzo[e,t][1,4,8,18]tetraazacycloheneicosine, 8,9,13,14-tetrahydro-8,8,9,9,13,13,14,14-octamethyl-(9CI)
(CA INDEX NAME)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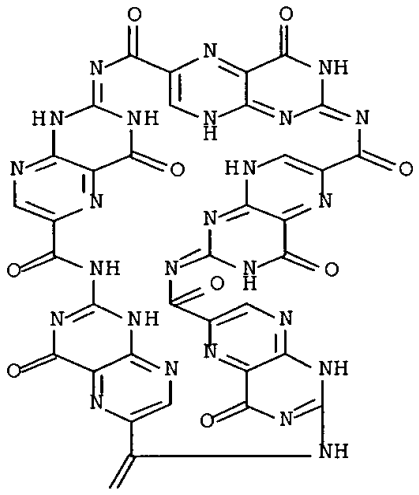
L4 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1988:526129 CAPLUS
DN 109:126129
TI The pigments in the dorsal skin of frogs
AU Suga, Takayuki; Munesada, Kiyotaka
CS Fac. Sci., Hiroshima Univ., Hiroshima, 730, Japan
SO Journal of Natural Products (1988), 51(4), 713-18
CODEN: JNPRDF; ISSN: 0163-3864
DT Journal
LA English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Five pigments and a colorless substance were present in the dorsal skin of frogs of nine selected species belonging to Rhacophoridae, Ranidae, Hylidae, and Bufonidae and were identified as pterin-6-carboxylic acid (I), xanthopterin (II), isoxanthopterin (III), erythro-biopterin (IV), 6-hydroxymethylpterin (V), and guanine, resp. Another pigment was specifically present in the skin of genus Rhacophorus and was deduced to be a pteridine deriv. composed of five mols. of pterin-6-carboxylic acid (VI).

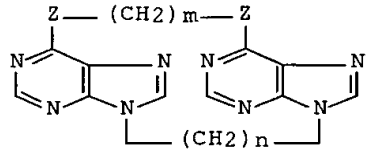
IT **116360-71-5**
RL: BIOL (Biological study)(of dorsal skin, of frog)
RN 116360-71-5 CAPLUS
CN 2,6,8,12,16,18,22,26,28,32,36,38,42,46,48,51,52,53,54,55,56,57,58,59,60-Pentacosaazaundecacyclo[45.3.1.14,50.17,11.110,14.117,21.120,24.127,31.130,34.137,41.140,44]hexaconta-1,3,7,10,12,14(59),17,20,22,24(57),27,30,32,34(55),37,40,42,44(53),47,50(52)-eicosaene-5,9,15,19,25,29,35,39,45,49-decone (9CI) (CA INDEX NAME)

PAGE 1-A

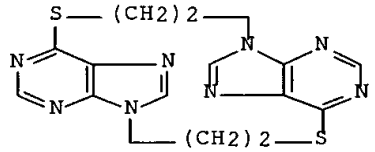


PAGE 2-A

L4 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1988:150454 CAPLUS
DN 108:150454
TI Synthesis and properties of purinophanes. Relationship between the magnitude of hypochromism and stacking geometry of purine rings
AU Seyama, F.; Akahori, K.; Sakata, Y.; Misumi, S.; Aida, M.; Nagata, C.
CS Inst. Sci. Ind. Res., Osaka Univ., Ibaraki, 567, Japan
SO Journal of the American Chemical Society (1988), 110(7), 2192-201
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
OS CASREACT 108:150454
GI



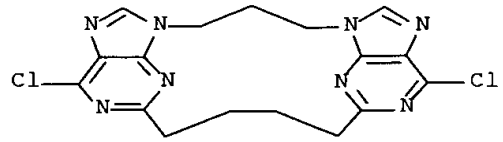
I



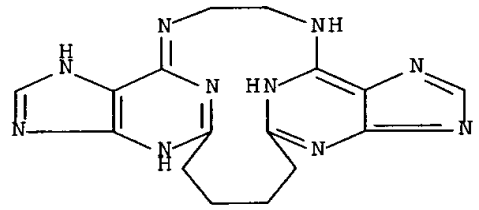
II

AB Twelve purinophanes, e.g. I (Z = NH, S, n = 3, 4, m = 2), in which two purine rings are fixed with different modes of stacking by two or three polymethylene chains, have been prepd. by either stepwise introduction of the linking chains or quasi-dimerization of disubstituted purine derivs. The five kinds of stacking geometries of the two component rings in the purinophanes were detd. by x-ray anal. and/or 1H NMR. The interplanar distances vary from 3.2 to 6.6 .ANG.. All of the purinophanes show large hypochromism (decrease in integrated absorption intensity compared with two molar monomeric refs. or one molar dimeric linear compd.), and the max. value was 47.6% for purinophane II. This is the largest value so far obsd. for dimeric nucleic acid bases. The hypochromism values of a no. of the purinophanes are almost identical in four different media (EtOH, H2O, 0.1 N HCl, 0.1 N NaOH). The bridge protons of these purinophanes show complex multiplets in their NMR spectra, in contrast to the first-order coupling patterns of acyclic ref. compds. These results indicate that the conformations of these compds. are almost frozen in the various media, at room temp. On the basis of the structures detd. by x-ray anal., hypochromism values were calcd. for three purinophanes by the PPP method including configurational interactions. These values, however, were not always in satisfactory agreement with obsd. values. By use of a simplified equation for hypochromism, the relationship between the hypochromism values and the geometrical parameters from the x-ray results was analyzed. Good correlations between them were found, and empirical formulas are postulated to est. the values of hypochromism for a given geometry of two purine rings stacked in parallel.

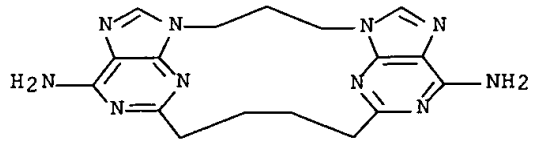
IT **93288-46-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with ethylenediamine, triply-bridged purinophane from)
RN 93288-46-1 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine, 20,23-dichloro-6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)



IT **93288-43-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and coupling of, to dibromobutane, triply-bridged purinophane from)
RN 93288-43-8 CAPLUS
CN 5,20:10,15-Diiminodiimidazo[4,5-f:4',5'-p][1,4,8,15]tetraazacyclooctadecine, 1,6,7,8,9,12,17,18-octahydro- (9CI) (CA INDEX NAME)

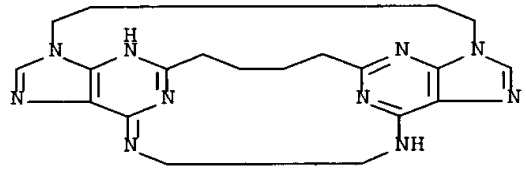


IT **84675-93-4P 84675-94-5P 93288-44-9P**
93288-45-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hypochromism of, in electronic spectrum, mol. structure in relation to)
RN 84675-93-4 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine-20,23-diamine, 6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)

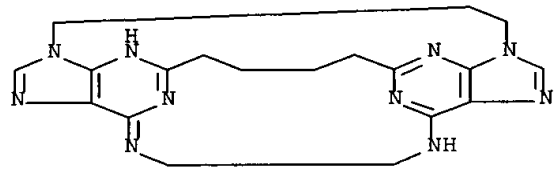


RN 84675-94-5 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine-21,24-diamine, 6,7,8,9,16,17,18,19-octahydro- (9CI) (CA INDEX NAME)

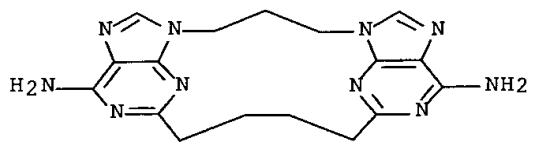
*** STRUCTURE DIAGRAM IS NOT AVAILABLE
RN 93288-44-9 CAPLUS
CN 5,26:10,21-Dinitrilo-3,12-(methaniminoethaniminomethano)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine, 6,7,8,9,16,17,18,19-octahydro-
(9CI) (CA INDEX NAME)



RN 93288-45-0 CAPLUS
CN 5,25:10,20-Dinitrilo-3,12-(methaniminoethaniminomethano)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine, 6,7,8,9,17,18-hexahydro-
(9CI) (CA INDEX NAME)

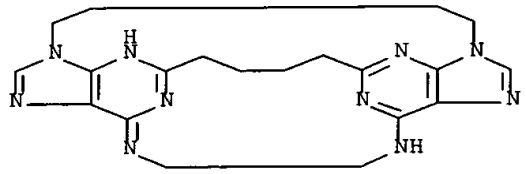


L4 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1986:109563 CAPLUS
DN 104:109563
TI Studies on syntheses and hypochromism of a series of purinophanes
AU Misumi, Soichi; Sakata, Yoshiteru
CS Inst. Sci. Ind. Res., Osaka Univ., Osaka, 567, Japan
SO Memoirs of the Institute of Scientific and Industrial Research, Osaka University (1985), 42, 53-67
CODEN: MISIAW; ISSN: 0369-0369
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Purinophanes, e.g., I (X, n = NH, 3; S, 2; S, 3), II, and III, and pyrimidinopurinophanes, e.g. IV (X1, n = NH, 4; S, 3; S, 4) were prepd. to study the face-to-face interaction of nucleic acid bases. Thus, treatment of 6-chloropurine with BrCH2CH2Cl in DMSO contg. K2CO3 and then with thiourea gave 12% 6-(amidinothio)-9-(2-chloroethyl)purine which cyclized in DMSO contg. K2CO3 to give I (X = S, n = 2) (V). Mol. structures of the prepd. compds. were detd. by NMR and x-ray crystal structure anal. All the purinophanes had UV hypochromic effects >23% with V possessing the highest value (47%). The hypochromic effect was dependent on overlap between the two bases and the interplanar distance.
IT **84675-93-4P 84675-94-5P 93288-44-9P**
93288-45-0P 93288-48-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and UV spectrum of, hypochromic effect in)
RN 84675-93-4 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine-20,23-diamine, 6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)



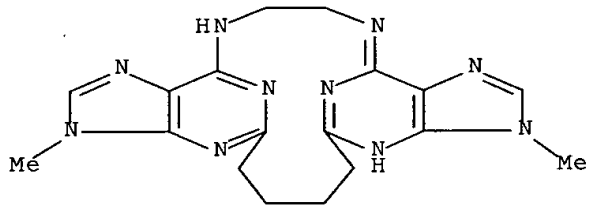
RN 84675-94-5 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine-21,24-diamine, 6,7,8,9,16,17,18,19-octahydro- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE
RN 93288-44-9 CAPLUS
CN 5,26:10,21-Dinitrilo-3,12-(methaniminoethaniminomethano)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine, 6,7,8,9,16,17,18,19-octahydro- (9CI) (CA INDEX NAME)

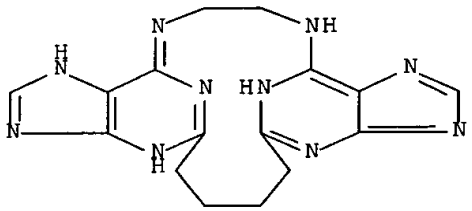


RN 93288-45-0 CAPLUS
CN 5,25:10,20-Dinitrilo-3,12-(methaniminoethaniminomethano)-16H-diimidazo[5,1-
b:1',5'-g][1,3,7,9]tetraazacyclopentadecine, 6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)

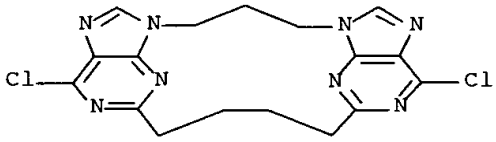
RN 93288-48-3 CAPLUS
CN 5,20:10,15-Diiminodiimidazo[4,5-f:4',5'-p][1,4,8,15]tetraazacyclooctadecin
e, 3,6,7,8,9,12,17,18-octahydro-3,12-dimethyl- (9CI) (CA INDEX NAME)



IT **93288-43-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and cyclization of, with alkylene dibromides)
RN 93288-43-8 CAPLUS
CN 5,20:10,15-Diiminodiimidazo[4,5-f:4',5'-p][1,4,8,15]tetraazacyclooctadecin
e, 1,6,7,8,9,12,17,18-octahydro- (9CI) (CA INDEX NAME)



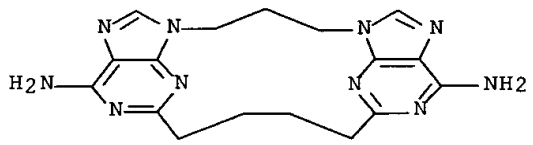
IT **93288-46-1P 100742-67-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 93288-46-1 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine, 20,23-dichloro-6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)



RN 100742-67-4 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine, 21,24-dichloro-6,7,8,9,16,17,18,19-octahydro- (9CI) (CA INDEX NAME)

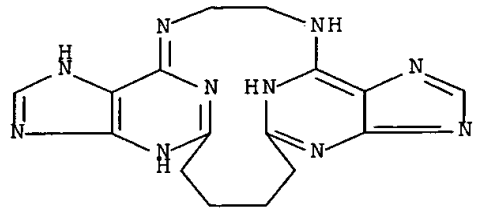
*** STRUCTURE DIAGRAM IS NOT AVAILABLE

L4 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1984:630214 CAPLUS
DN 101:230214
TI Layered compounds. LXXVI. Synthesis and structure of triply bridged purinophanes
AU Akahori, Kingo; Hama, Fumio; Sakata, Yoshiteru; Misumi, Soichi
CS Inst. Sci. Ind. Res., Osaka Univ., Osaka, 567, Japan
SO Tetrahedron Lett. (1984), 25(22), 2379-82
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB The title compds. I (n = 3,4) were synthesized as a model for studying the relationship between the hypochromism and the stacking mode of two purine rings. By comparing I with other purinophanes it was concluded that the fully overlapped orientation of two purine rings gives the largest hypochromicity.
IT **84675-93-4 84675-94-5**
RL: RCT (Reactant)
(hypochromicity of, triply bridged purinophanes comparison with)
RN 84675-93-4 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine-20,23-diamine, 6,7,8,9,17,18-hexahydro-
(9CI) (CA INDEX NAME)

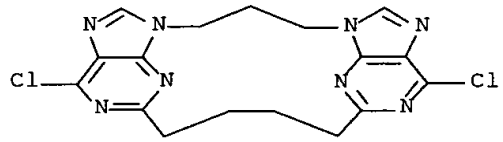


RN 84675-94-5 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine-21,24-diamine, 6,7,8,9,16,17,18,19-octahydro- (9CI) (CA INDEX NAME)

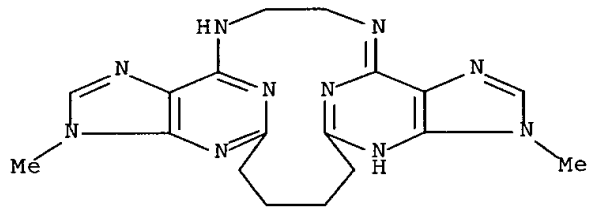
*** STRUCTURE DIAGRAM IS NOT AVAILABLE
IT **93288-43-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization of, with dibromobutane, triply bridged purinophanes by)
RN 93288-43-8 CAPLUS
CN 5,20:10,15-Diiminodiimidazo[4,5-f:4',5'-p][1,4,8,15]tetraazacyclooctadecine, 1,6,7,8,9,12,17,18-octahydro- (9CI) (CA INDEX NAME)



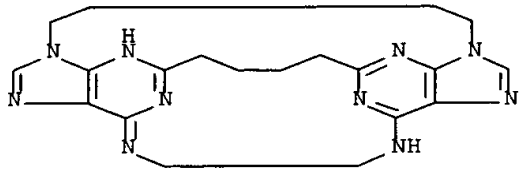
IT **93288-46-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization reaction of, with ethylenediamine, triply bridged purinophane by)
RN 93288-46-1 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine, 20,23-dichloro-6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)



IT **93288-48-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hypochromicity of, triply bridged purinophanes comparison with)
RN 93288-48-3 CAPLUS
CN 5,20:10,15-Diiminodiimidazo[4,5-f:4',5'-p][1,4,8,15]tetraazacyclooctadecine, 3,6,7,8,9,12,17,18-octahydro-3,12-dimethyl- (9CI) (CA INDEX NAME)

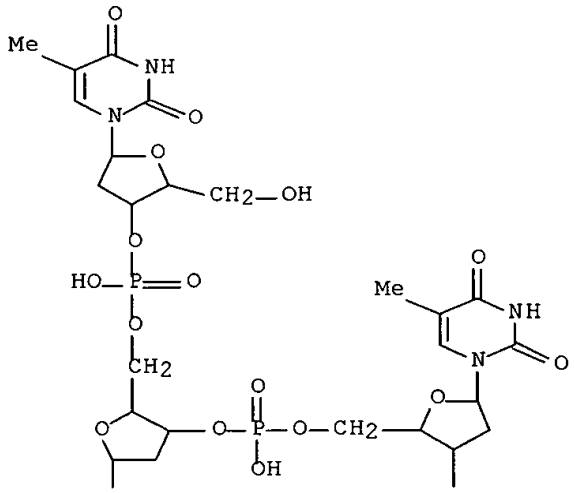


IT **93288-44-9P 93288-45-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and structure of, hypochromism in relation to)
RN 93288-44-9 CAPLUS
CN 5,26:10,21-Dinitrilo-3,12-(methaniminoethaniminomethano)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine, 6,7,8,9,16,17,18,19-octahydro-
(9CI) (CA INDEX NAME)

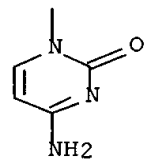


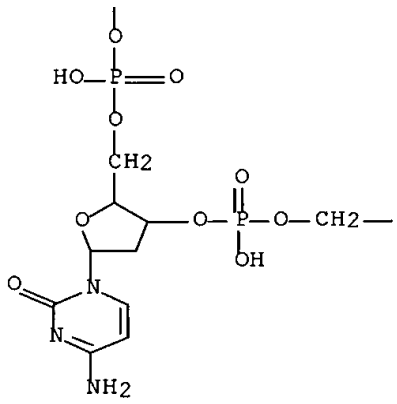
RN 93288-45-0 CAPLUS
CN 5,25:10,20-Dinitrilo-3,12-(methaniminoethaniminomethano)-16H-diimidazo[5,1-
b:1',5'-g][1,3,7,9]tetraazacyclopentadecine, 6,7,8,9,17,18-hexahydro-
(9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1984:98474 CAPLUS
DN 100:98474
TI cis-Diamminedichloroplatinum(II) induced distortion in a double-helical DNA fragment
AU Den Hartog, Jeroen H. J.; Altona, Cornelis; Van Boom, Jacques H.; Van der Marel, Gijs A.; Haasnoot, Cornelis A. G.; Reedijk, Jan
CS Gorlaeus Lab., State Univ. Leiden, Leiden, 2300 RA, Neth.
SO J. Am. Chem. Soc. (1984), 106(5), 1528-30
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB The title compd., cis-PtCl2(NH3)2, reacted with the decanucleotide, d(T-C-T-C-G-G-T-C-T-C), at both N7 atoms of the guanine residues, forming a d(GpG).cntdot.cis-Pt intrastrand crosslink. Upon addn. of the complementary strand, d(G-A-G-A-C-C-G-A-G-A), the imino protons of the double-stranded form were studied. It appeared that at temps. of <28.degree., all base pairs, including the central 2 G-C base pairs, were maintained, in spite of Pt binding. However, duplex formation was destabilized. Structural changes, such as stacking alterations, of the central 4 base pairs were deduced from the large chem. shift changes.
IT **88904-83-0 88904-84-1**
RL: PRP (Properties)
(NMR of)
RN 88904-83-0 CAPLUS
CN Platinum, dichloro(2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)

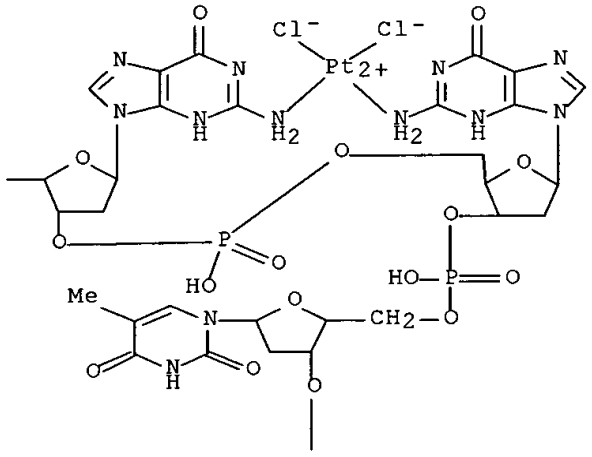


PAGE 2-A

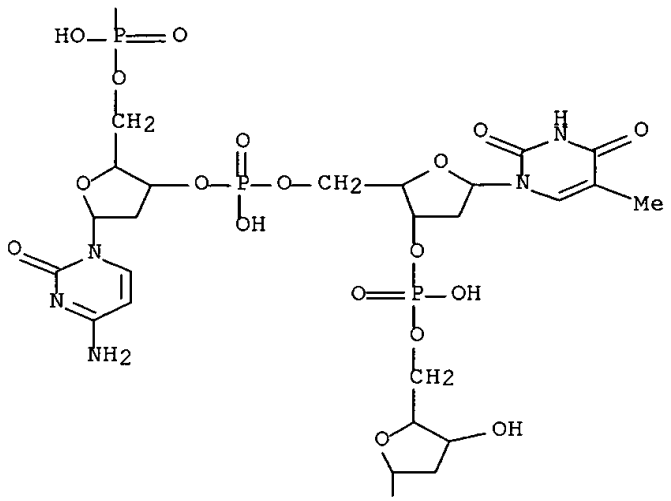




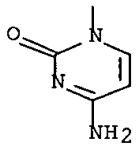
PAGE 2-B



PAGE 3-B



PAGE 4-B

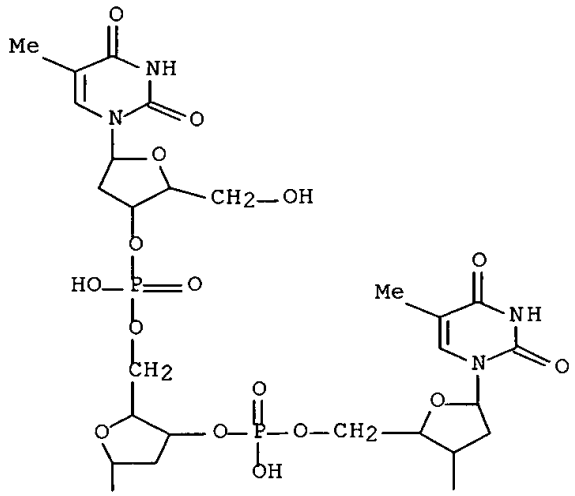


RN 88904-84-1 CAPLUS
CN Guanosine, 2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-
2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyadenylyl-(5'.fwdarw.3')-2'-deoxy-, complex with dichloro[2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxyguanylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidylyl-(5'.fwdarw.3')-2'-deoxycytidylyl-(5'.fwdarw.3')-thymidine]platinum (1:1) (9CI) (CA INDEX NAME)

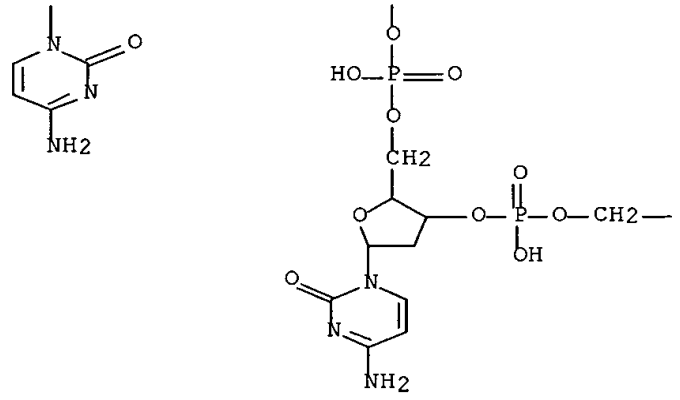
CM 1

CRN 88904-83-0
CMF C96 H125 Cl2 N30 O62 P9 Pt
CCI CCS

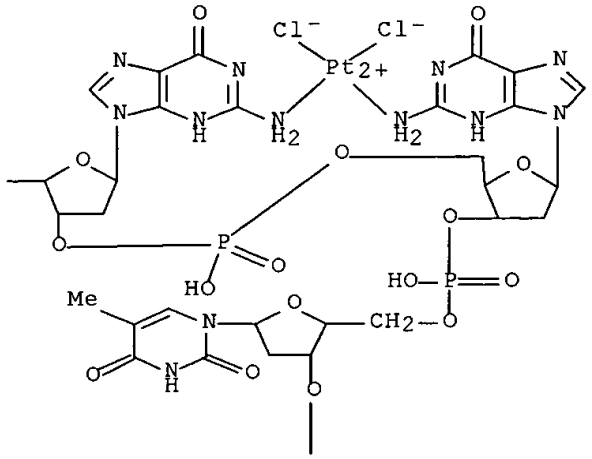
PAGE 1-A



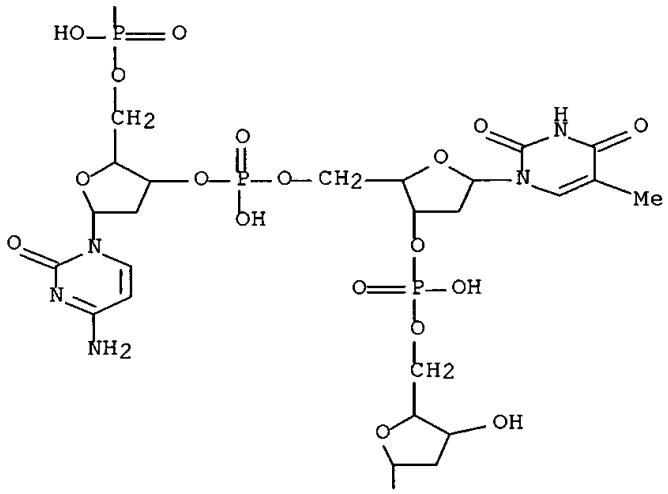
PAGE 2-A



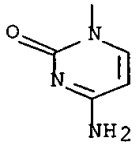
PAGE 2-B



PAGE 3-B



PAGE 4-B



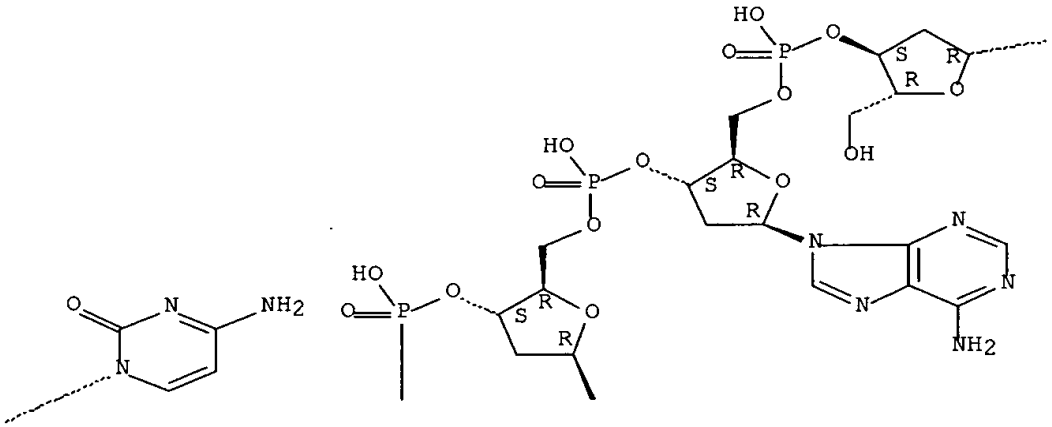
CM 2

CRN 88904-81-8

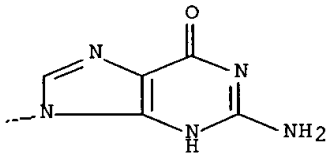
CMF C98 H121 N46 O54 P9

Absolute stereochemistry.

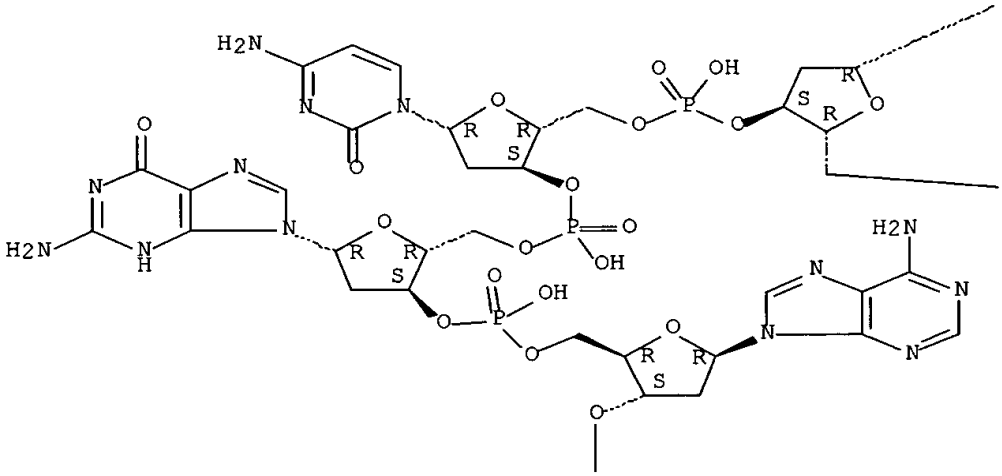
PAGE 1-B



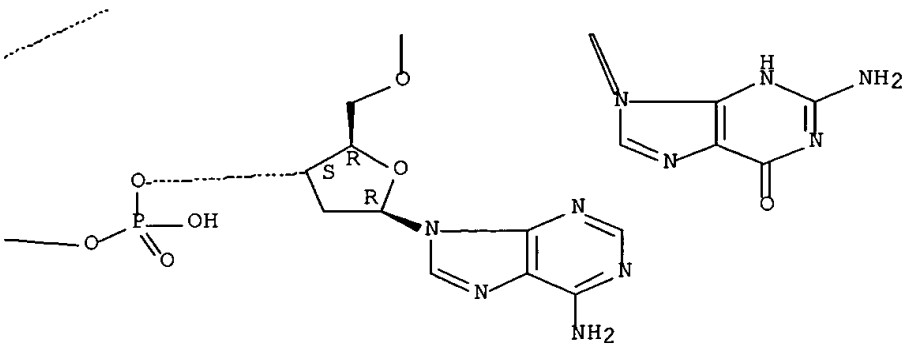
PAGE 1-C



PAGE 2-A



PAGE 2-B



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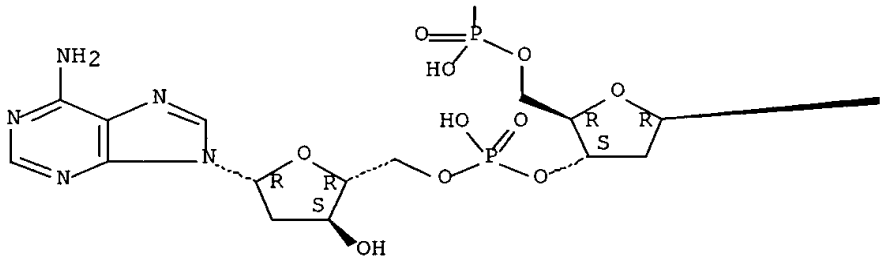
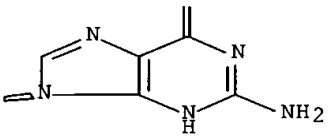
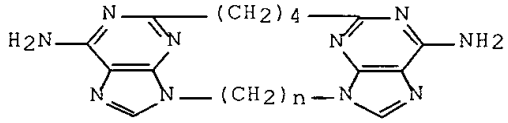


PAGE 3-B



L4 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1983:85004 CAPLUS
DN 98:85004
TI Layered compounds. LXXII. Synthesis, structure, and hypochromism of (2,9)adeninophanes
AU Akahori, Kingo; Hama, Fumio; Sakata, Yoshiteru; Misumi, Soichi
CS Inst. Sci. Ind. Res., Osaka Univ., Osaka, 567, Japan
SO Nucleic Acids Symp. Ser. (1982), 11(Symp. Nucleic Acids Chem., 10th, 1982), 265-8
CODEN: NACSD8; ISSN: 0261-3166
DT Journal
LA English
GI

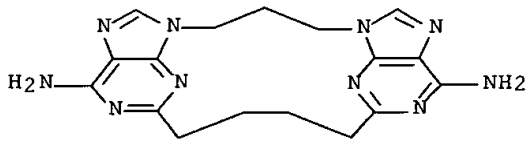


I

AB A new type of purinophane, I (n = 3,4), was synthesized via 3 steps in .apprx.13% overall yield. X-ray crystallog. anal. of I (n = 3) revealed the nonstacked structure with dihedral angle of 122.0.degree.. Due to the nonparallel orientation, only small hypochromism was obsd. for I.

IT **84675-93-4P 84675-94-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and hypochromism of)

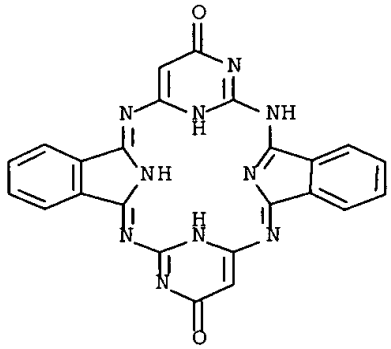
RN 84675-93-4 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)-16H-diimidazo[5,1-b:1',5'-g][1,3,7,9]tetraazacyclopentadecine-20,23-diamine, 6,7,8,9,17,18-hexahydro- (9CI) (CA INDEX NAME)



RN 84675-94-5 CAPLUS
CN 5,3:10,12-Bis(nitrilometheno)diimidazo[5,1-b:1',5'-h][1,3,8,10]tetraazacyclohexadecine-21,24-diamine, 6,7,8,9,16,17,18,19-octahydro- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE

L4 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2002 ACS
AN 1970:410243 CAPLUS
DN 73:10243
TI Metal complexes of macroheterocyclic compounds containing a triazine group
AU Smirnov, R. P.; Gnedina, V. A.; Borodkin, V. F.
CS Ivanov. Khim-Tekhnol. Inst., Ivanovo, USSR
SO Khim. Geterotsikl. Soedin. (1969), (6), 1102-5
CODEN: KGSSAQ
DT Journal
LA Russian
GI For diagram(s), see printed CA Issue.
AB The condensation of 3,5-diamino-1,2,4-triazole with diiminoisoindoline yields the macroheterocyclic compd. I. II was prepd. similarly from 2,4-diamino-6-chloropyrimidine and dimethoxydiiminoisoindoline. Anhyd. salts of bivalent metals Cu, Ni, Co, Zn, and Cd yielded with I complexes of the type ML, where H2L = I, not melting at 500.degree. (orange or brown); II yielded complexes with Cu or Ni salts not melting at 400.degree. (violet and dark brown). Typical uv spectra of the complexes are influenced, esp. by Cu and Ni, with a new and strong absorption at 400-20 nm. Electron shifts are discussed.
IT **28486-70-6P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of)
RN 28486-70-6 CAPLUS
CN 5,26:13,18-Diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,14,18]hexaaza cyclodocosine-9,22-diol (8CI) (CA INDEX NAME)



IT **28451-29-8P 28451-30-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 28451-29-8 CAPLUS
CN Copper, [5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,14,18]hexaazacyclodocosine-9,22-diolato(2-)]- (8CI) (CA INDEX NAME)

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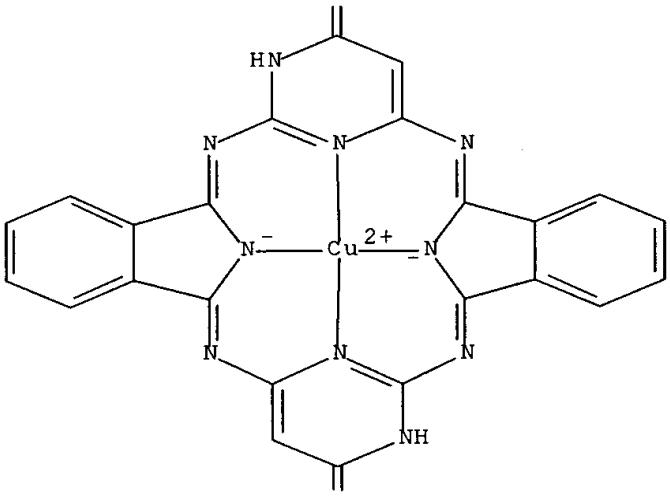

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||
O

RN 28451-30-1 CAPLUS
CN Nickel, [5,26:13,18-diimino-7,11:20,24-dinitrilodibenzo[i,t][1,3,7,12,14,18]hexaazacyclodocosine-9,22-diolato(2-)]- (8CI) (CA INDEX NAME)

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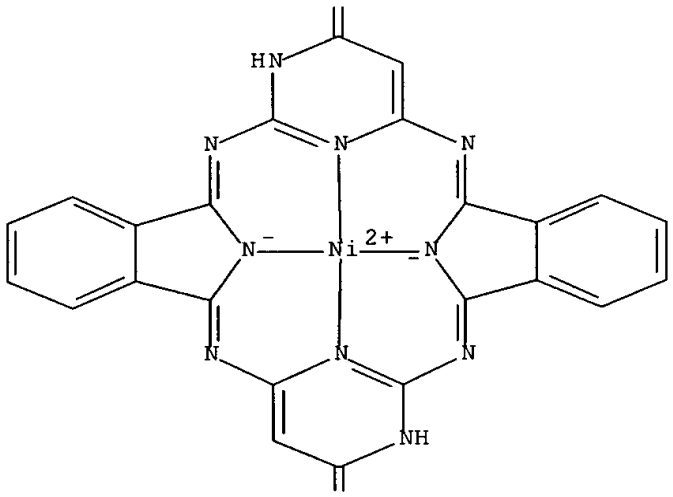

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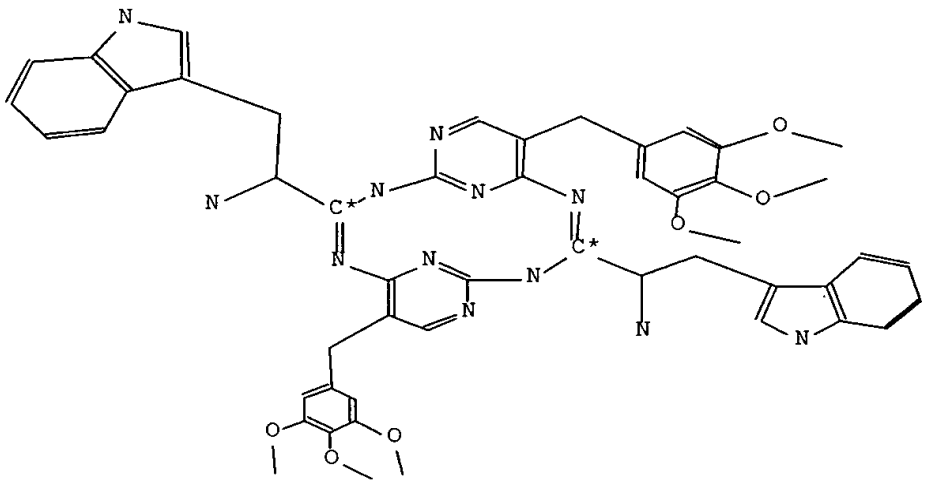
L8 ANSWER 1 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

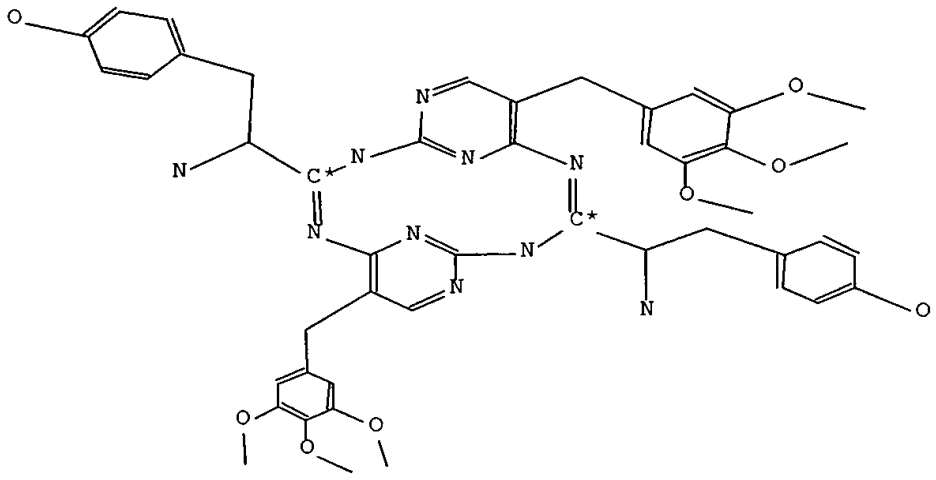
Beilstein Records (BRN):	8534889
Chemical Name (CN):	1-<11-<1-amino-2-(1H-indol-3-yl)-ethyl>-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-2-(1H-indol-3-yl)-ethylamine
Autonom Name (AUN):	1-<11-<1-amino-2-(1H-indol-3-yl)-ethyl>-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-2-(1H-indol-3-yl)-ethylamine
Molec. Formula (MF):	C50 H52 N12 O6
Molecular Weight (MW):	917.04
Lawson Number (LN):	30808, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7235847
Tautomer ID (TAUTID):	8037229
Entry Date (DED):	2000/07/18
Update Date (DUPD):	2000/07/18



Reference(s):
1. Amaladasan, M.; Paulraj, A.; Arulsamy, K. S., Indian J.Chem.Sect.B, CODEN:
IJSBDB, 38(11), <1999>, 1282 - 1284; BABS-6222434

L8 ANSWER 2 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8534322
Molec. Formula (MF):	C46 H50 N10 O8
Molecular Weight (MW):	870.96
Lawson Number (LN):	30814, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7235455
Tautomer ID (TAUTID):	8037356
Entry Date (DED):	2000/07/18
Update Date (DUPD):	2000/07/18



Reference(s):

1. Amaladasan, M.; Paulraj, A.; Arulsamy, K. S., Indian J.Chem.Sect.B, CODEN:
IJSBDB, 38(11), <1999>, 1282 - 1284; BABS-6222434

L8 ANSWER 3 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8533680
Chemical Name (CN):	1-<11-(1-amino-2-phenyl-ethyl)-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-2-phenyl-ethylamine
Autonom Name (AUN):	1-<11-(1-amino-2-phenyl-ethyl)-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-2-phenyl-ethylamine
Molec. Formula (MF):	C46 H50 N10 O6
Molecular Weight (MW):	838.96
Lawson Number (LN):	30812, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7234906
Tautomer ID (TAUTID):	8037120
Entry Date (DED):	2000/07/18
Update Date (DUPD):	2000/07/18

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Reference(s):

1. Amaladasan, M.; Paulraj, A.; Arulsamy, K. S., Indian J.Chem.Sect.B, CODEN:
IJSBDB, 38(11), <1999>, 1282 - 1284; BABS-6222434

L8 ANSWER 4 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8531115
Chemical Name (CN):	1-<11-(1-amino-ethyl)-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-ethylamine
Autonom Name (AUN):	1-<11-(1-amino-ethyl)-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-ethylamine
Molec. Formula (MF):	C34 H42 N10 O6
Molecular Weight (MW):	686.77
Lawson Number (LN):	30814, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7232855
Tautomer ID (TAUTID):	8034728
Entry Date (DED):	2000/07/18
Update Date (DUPD):	2000/07/18

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Reference(s):
1. Amaladasan, M.; Paulraj, A.; Arulsamy, K. S., Indian J.Chem.Sect.B, CODEN:
IJSBDB, 38(11), <1999>, 1282 - 1284; BABS-6222434

Reference(s):
1. Amaladasan, M.; Paulraj, A.; Arulsamy, K. S., Indian J.Chem.Sect.B, CODEN:
IJSBDB, 38(11), <1999>, 1282 - 1284; BABS-6222434

L8 ANSWER 5 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8531049
Chemical Name (CN):	C-<11-aminomethyl-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-methylamine
Autonom Name (AUN):	C-<11-aminomethyl-8,16-bis-(3,4,5-trimethoxy-benzyl)-2,4,6,10,12,14,17,18-octaaza-tricyclo<11.3.1.15,9>octadeca-1(16),2,5(18),6,8,10,13(17),14-octaen-3-yl>-methylamine
Molec. Formula (MF):	C32 H38 N10 O6
Molecular Weight (MW):	658.72
Lawson Number (LN):	30810, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7232813
Tautomer ID (TAUTID):	8034153
Entry Date (DED):	2000/07/18
Update Date (DUPD):	2000/07/18

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Reference(s):

1. Amaladasan, M.; Paulraj, A.; Arulsamy, K. S., Indian J.Chem.Sect.B, CODEN:
IJSBDB, 38(11), <1999>, 1282 - 1284; BABS-6222434

L8 ANSWER 6 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8180097
Chemical Name (CN):	12,22,34-trimethyl-24,38-dioxo-15,31-dithia-2,9,13,21,25,33,36,37-octaazatetracyclo<30,3,1,110,14,121,25>octatriaconta-1(36),10(37),11,13,22,32,34-heptaene
Molec. Formula (MF):	C31 H46 N8 O2 S2
Molecular Weight (MW):	626.88
Lawson Number (LN):	32590
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6958217
Tautomer ID (TAUTID):	7724332
Entry Date (DED):	2000/02/26
Update Date (DUPD):	2000/02/26

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Reference(s):

1. Mikhailov, A. S.; Pashkurov, N. G.; Reznik, V. S.; Giniyatullin, R. Kh.; Skuzlova, V. I.; et al., Dokl.Chem.(Engl.Transl.), CODEN: DKCHAY, 362(4-6), <1998>, 203 - 204, Dokl.Akad.Nauk, CODEN: DAKNEQ, 362(5), <1998>, 643 - 644; BABS-6150548

Reference(s):

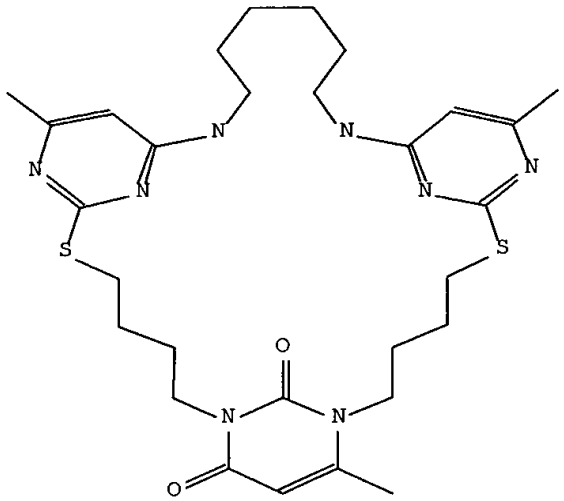
1. Mikhailov, A. S.; Pashkurov, N. G.; Reznik, V. S.; Giniyatullin, R. Kh.; Skuzlova, V. I.; et al., Dokl.Chem.(Engl.Transl.), CODEN: DKCHAY, 362(4-6), <1998>, 203 - 204, Dokl.Akad.Nauk, CODEN: DAKNEQ, 362(5), <1998>, 643 - 644; BABS-6150548

Reference(s):

1. Mikhailov, A. S.; Pashkurov, N. G.; Reznik, V. S.; Giniyatullin, R. Kh.; Skuzlova, V. I.; et al., Dokl.Chem.(Engl.Transl.), CODEN: DKCHAY, 362(4-6), <1998>, 203 - 204, Dokl.Akad.Nauk, CODEN: DAKNEQ, 362(5), <1998>, 643 - 644; BABS-6150548

L8 ANSWER 7 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	8179452
Chemical Name (CN):	12,21,32-trimethyl-23,36-dioxo-15,19-dithia-2,9,13,20,24,31,34,35-octaazatetracyclo<28,3,1,110,14,120,24>hexatriaconta-1(34),10(35),11,13,21,30,32-heptaene
Molec. Formula (MF):	C29 H42 N8 O2 S2
Molecular Weight (MW):	598.82
Lawson Number (LN):	32588
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6957726
Tautomer ID (TAUTID):	7723912
Entry Date (DED):	2000/02/26
Update Date (DUPD):	2000/02/26



Reference(s):

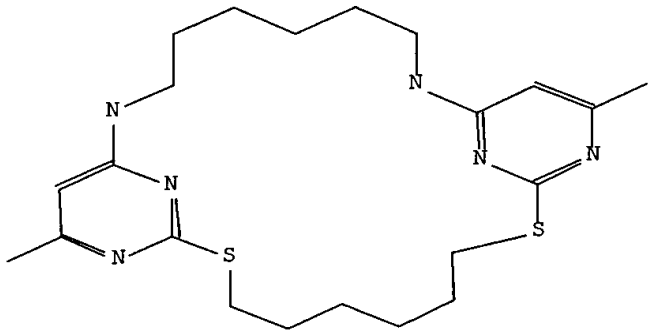
1. Mikhailov, A. S.; Pashkurov, N. G.; Reznik, V. S.; Giniyatullin, R. Kh.; Skuzlova, V. I.; et al., Dokl.Chem.(Engl.Transl.), CODEN: DKCHAY, 362(4-6), <1998>, 203 - 204, Dokl.Akad.Nauk, CODEN: DAKNEQ, 362(5), <1998>, 643 - 644; BABS-6150548

Reference(s):

1. Mikhailov, A. S.; Pashkurov, N. G.; Reznik, V. S.; Giniyatullin, R. Kh.; Skuzlova, V. I.; et al., Dokl.Chem.(Engl.Transl.), CODEN: DKCHAY, 362(4-6), <1998>, 203 - 204, Dokl.Akad.Nauk, CODEN: DAKNEQ, 362(5), <1998>, 643 - 644; BABS-6150548

L8 ANSWER 8 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7779733
Chemical Name (CN):	12,25-dimethyl-2,9-dithia-11,15,22,26,27,28-hexaazatricyclo<21.3.1.110,14>-octacosa-1(27),10(28),11,13,23,25-hexaene
Molec. Formula (MF):	C22 H34 N6 S2
Molecular Weight (MW):	446.67
Lawson Number (LN):	32590
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6632888
Tautomer ID (TAUTID):	7355030
Beilstein Citation (BSO):	6-27
Entry Date (DED):	1998/03/03
Update Date (DUPD):	1998/03/04

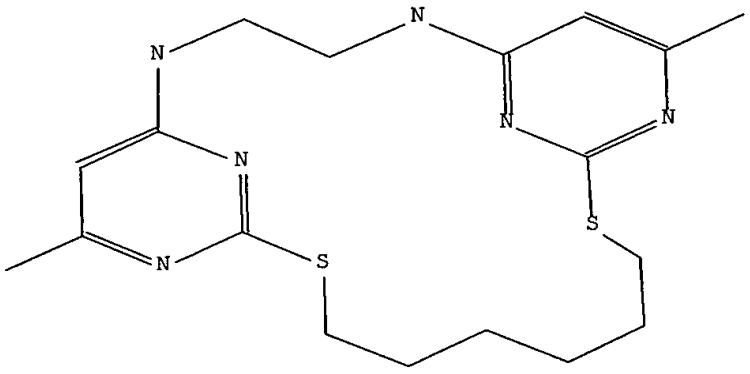


Reference(s):

1. Mikhailov, A. S.; Skuzlova, V. I.; Pashkurova, N. G.; Reznik, V. S., Russ.J.Gen.Chem., CODEN: RJGCEK, 66(3), <1996>, 500-503, Zh.Obshch.Khim., CODEN: ZOKHA4, 66(3), <1996>, 514-517; BABS-6062523

L8 ANSWER 9 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7778734
Chemical Name (CN):	12,21-dimethyl-2,9-dithia-11,15,18,22,23,24-hexaazatricyclo<17.3.1.110,14>-tetracosa-1(23),10(24),11,13,19,21-hexaene
Molec. Formula (MF):	C18 H26 N6 S2
Molecular Weight (MW):	390.56
Lawson Number (LN):	32586
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6624470
Tautomer ID (TAUTID):	7347942
Beilstein Citation (BSO):	6-27
Entry Date (DED):	1998/03/03
Update Date (DUPD):	1998/03/04

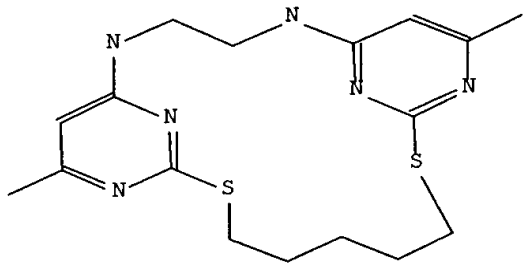


Reference(s):

1. Mikhailov, A. S.; Skuzlova, V. I.; Pashkurova, N. G.; Reznik, V. S., Russ.J.Gen.Chem., CODEN: RJGCEK, 66(3), <1996>, 500-503, Zh.Obshch.Khim., CODEN: ZOKHA4, 66(3), <1996>, 514-517; BABS-6062523

L8 ANSWER 10 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7778371
Chemical Name (CN):	11,20-dimethyl-2,8-dithia-10,14,17,21,22,23-hexaazatricyclo<16.3.1.19,13>-tricosa-1(22),9(23),10,12,18,20-hexaene
Molec. Formula (MF):	C17 H24 N6 S2
Molecular Weight (MW):	376.54
Lawson Number (LN):	32591
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6620489
Tautomer ID (TAUTID):	7347367
Beilstein Citation (BSO):	6-27
Entry Date (DED):	1998/03/03
Update Date (DUPD):	1998/03/04

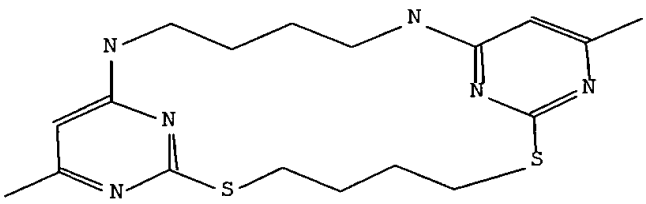


Reference(s):

1. Mikhailov, A. S.; Skuzlova, V. I.; Pashkurova, N. G.; Reznik, V. S., Russ.J.Gen.Chem., CODEN: RJGCEK, 66(3), <1996>, 500-503, Zh.Obshch.Khim., CODEN: ZOKHA4, 66(3), <1996>, 514-517; BABS-6062523

L8 ANSWER 11 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	7777305
Chemical Name (CN):	10,21-dimethyl-2,7-dithia-9,13,18,22,23,24-hexaazatricyclo<17.3.1.18,12>-tetracosa-1(23),8(24),9,11,19,21-hexaene
Molec. Formula (MF):	C18 H26 N6 S2
Molecular Weight (MW):	390.56
Lawson Number (LN):	32586
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6622512
Tautomer ID (TAUTID):	7347941
Beilstein Citation (BSO):	6-27
Entry Date (DED):	1998/03/03
Update Date (DUPD):	1998/03/04

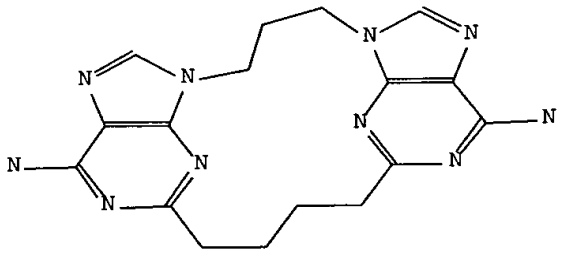


Reference(s):

1. Mikhailov, A. S.; Skuzlova, V. I.; Pashkurova, N. G.; Reznik, V. S., Russ.J.Gen.Chem., CODEN: RJGCEK, 66(3), <1996>, 500-503, Zh.Obshch.Khim., CODEN: ZOKHA4, 66(3), <1996>, 514-517; BABS-6062523

L8 ANSWER 12 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	6247292
Molec. Formula (MF):	C17 H20 N10
Molecular Weight (MW):	364.41
Lawson Number (LN):	30808
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	5458805
Tautomer ID (TAUTID):	5966125
Beilstein Citation (BSO):	6-26
Entry Date (DED):	1993/10/20
Update Date (DUPD):	1993/10/20

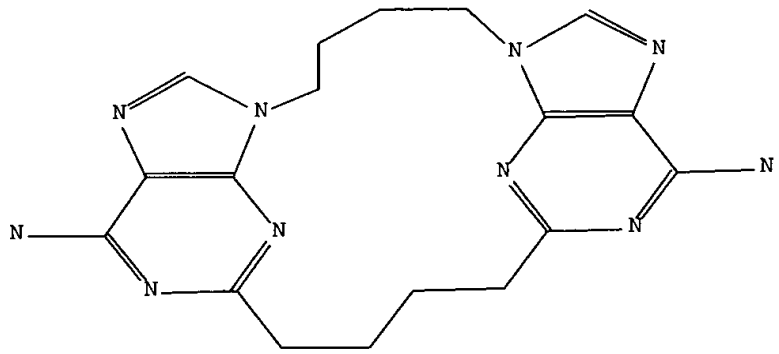


Reference(s):

1. Seyama, F.; Akahori, K.; Sakata, Y.; Misumi, S.; Aida, M.; Nagata, C.,
J.Amer.Chem.Soc., CODEN: JACSAT, 110(7), <1988>, 2192-2201;
BABS-5767886

L8 ANSWER 13 OF 13 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

Beilstein Records (BRN):	6246382
Molec. Formula (MF):	C18 H22 N10
Molecular Weight (MW):	378.44
Lawson Number (LN):	30810
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	5460753
Tautomer ID (TAUTID):	5967581
Beilstein Citation (BSO):	6-26
Entry Date (DED):	1993/10/20
Update Date (DUPD):	1993/10/20



Reference(s):

1. Seyama, F.; Akahori, K.; Sakata, Y.; Misumi, S.; Aida, M.; Nagata, C.,
J.Amer.Chem.Soc., CODEN: JACSAT, 110(7), <1988>, 2192-2201;
BABS-5767886

L11 ANSWER 1 OF 3 MARPAT COPYRIGHT 2002 ACS
AN 134:260535 MARPAT
TI Preparation of porphyrin dimer from imidazolylporphyrin metal coordination
compound as monomer
IN Kofuya, Yoshiaki; Inaba, Yusuke; Kugimiya, Shinichi
PA Nara Advanced Science Technology Institute, Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001081091	A2	20010327	JP 1999-255978	19990909
JP 3256742	B2	20020212		

GI

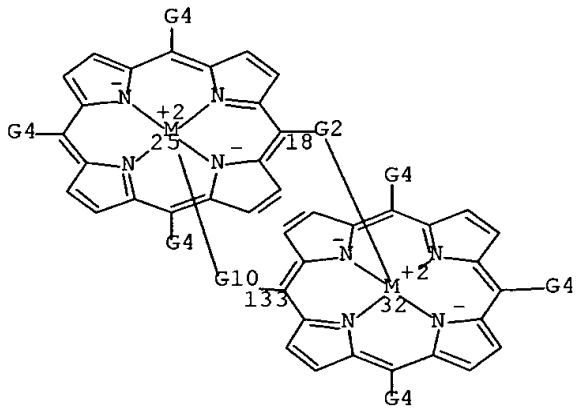
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; M = Fe(II), Co(II); R1 = Q; Im = imidazolyl group selected from Q1-Q6; wherein R2, R3, R4 = H, alkyl; R5 = H, halo, alkyl; R6 = alkyl, aryl, arylalkyl, haloalkyl; R7 = H, halo, alkyl, NHCOR8 (wherein R8 = alkyl, aryl, arylalkyl, haloalkyl)] are prepd. Theses compds. are capable of allosteric regulation due to sigmoid-type binding to mol. oxygen and useful as artificial blood components, and also cooperatively activates mol. oxygen and useful as regioselective oxygenating agents for higher alkanes or other hydrocarbons. They may be expected to find an application in sensors for oxygen, carbon monoxide, and carbon dioxide with high sensitivity owing to sudden change in adsorbability of these gases when amt. of these mols. exceed certain values (no data). Thus, 2.50 g pyrrole was added to a soln. of 3.74 g 2-nitrobenzaldehyde and 1.19 g imidazole-2-carboxaldehyde in 110 mL propionic acid and refluxed for 4 min to give, after workup and silica gel chromatog., 713 mg 5,10,15-tris(o-nitrophenyl)-20-imidazolylporphyrin which was reduced by excess SnCl2.2H2O in 8 mL concd. HCl at room temp. for 25 min to give 55.6% 5,10,15-tris(o-aminophenyl)-20-imidazolylporphyrin as a mixt. of stereoisomers. The stereoisomeric mixt. (70 mg) and 2.52 g silica gel were suspended in 6 mL benzene, purged with argon, and stirred at .apprx.80 for 20 h to give, after workup and silica gel chromatog., 15.7% 5,10,15-tris(.alpha.,.alpha.,.alpha.-o-aminophenyl)-20-imidazolylporphyrin which (11 mg) was acylated by 10 .mu.L pivaloyl chloride in the presence of pyridine in CHCl3 at room temp. for 2 h to give, after workup and silica gel chromatog., 46.7% 5,10,15-tris[.alpha.,.alpha.,.alpha.-o-(pivaloylamino)phenyl]-20-imidazolylporphyrin (II). To the latter compd. II (15 mg) and 244 mg FeBr2 were added 2 mL THF and .apprx.5 mg 3,5-lutidine and refluxed for 3

h to give, after alumina column chromatog., 4 mg II-Fe(III)Br complex which (4 mg) was dissolved in THF/benzene (1:1, 2 mL) and treated with 3 mL 0.2 M aq. sodium hydrosulfide and vigorously stirred for 30 min to give

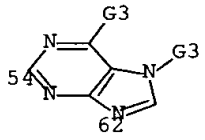
I [M = Fe(III), R1 = 2-(pivaloylamino)phenyl, Im = 2-imidazolyl].

MSTR 1



G1

G2 = 54-18 62-32



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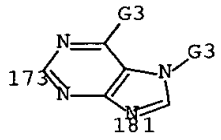


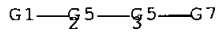
MPL: claim 1

L11 ANSWER 2 OF 3 MARPAT COPYRIGHT 2002 ACS
AN 127:285890 MARPAT
TI Silver halide photographic emulsion and material with improved ratio of sensitivity to granularity
IN Ueda, Fuminori
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 46 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

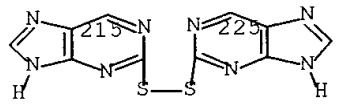
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 09230530	A2	19970905	JP 1996-55354	19960220

AB The photog. emulsion, comprising (111)Ag(Br,I) tabular grains (aspect ratio .gtoreq.2) having .gtoreq.2 AgI-rich layers in the total projection area .gtoreq.50 %, is obtained by mixing with a dichalcogen compd. R1X1X2R2 (R1-R2 = alkyl, aryl, heterocycle, amino, R3C:O, R4OC:O, R3R5NC:O, R3C:NH, R4OC:NH, R3R5NC:NH, R3C:S, R4OC:S, R3R5NC:S; R3, R5 = H, alkyl, aryl, heterocycle; R4 = alkyl, aryl, heterocycle; X1-X2 = S, Se, Te; R1, R2, X1, and X2 may form ring) in formation of the grains or after chem. sensitization. The photog. material has .gtoreq.1 photosensitive layer contg. the above emulsion. The material shows improved ratio of sensitivity to granularity, good pressure resistance, and less degrdn. of the emulsion in the presence of cyanine dyes.

MSTR 1



G1 +G7 = 215-2 225-3



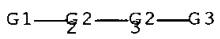
MPL: claim 1

L11 ANSWER 3 OF 3 MARPAT COPYRIGHT 2002 ACS
AN 127:25840 MARPAT
TI Silver halide photographic emulsion containing hydroxylamine and dichalcogenide and the photographic material
IN Matsumoto, Atsushi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 57 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09080677	A2	19970328	JP 1995-259485	19950913

AB Claimed photog. emulsion contains (a) a hydroxylamine Ra1Ra2NOH, (Ra1 = alkyl, alkenyl, aryl, heterocyclic group, acyl, sulfonyl, sulfinyl, carbamoyl, sulfamoyl, alkoxycarbamoyl, aryloxycarbamoyl; Ra2 = H or designates the same as Ra1; Ra1 and Ra2 may be combined to form a 5- to 7-membered ring) and (b) a dichalcogenide compd. Rs1X1X2Rs2 (Rs1 and Rs2 = alkyl, aryl, heterocyclic group, amino, amido, thioamido, aminocarbonyl, etc; X1 and X2 = S, Se, Te). Also claimed is the photog. material utilizing the emulsion. It has high sensitivity keeping the fog at a low level, and a good latent image stability.

MSTR 2



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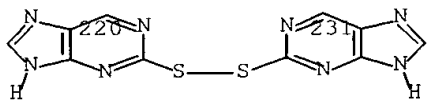

MPL: claim 1

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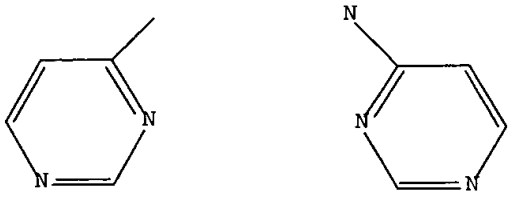


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L3             52 S L1 FUL

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L5              0 S L1
L6             19 S L1 FUL
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L8             13 S L6 NOT L4

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L9              0 S L1
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L11             3 S L10 NOT L4


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